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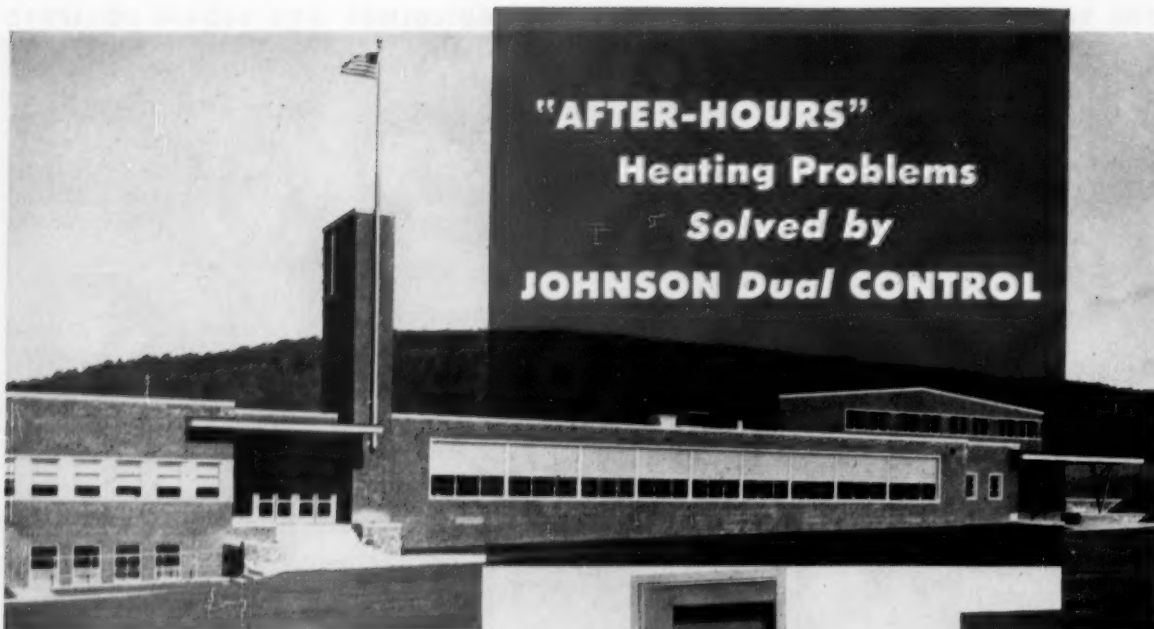
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THE NATION'S SCHOOLS

THE MAGAZINE OF BETTER SCHOOL ADMINISTRATION

JULY 1955

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AMONG THE AUTHORS



Paul A. Witty

PAUL ANDREW WITTY, who reveals (p. 35) the absurdities in Rudolf Flesch's attack on the teaching of reading, has been professor of education and director of the Psycho-Educational Clinic at Northwestern University, Evanston, Ill., since 1930, except for the years 1942-44 when he was on leave of absence to serve as a major in the U.S. Army. He is the author of many books on reading as well as in the entire field of educational psychology. He also serves as chief educational consultant to a large publishing company and is a member of the advisory board for the U.S. Air Training Command. Five educational publications enlist his counsel as a member of their editorial boards. He is a director of the International Society for the Study of Semantics, the National Council of the Teachers of English, the National Association for Remedial Teaching, and the National Society for the Study of Education. He is a past president of the International Council for the Improvement of Reading and vice president of the American Association for Gifted Children.

Previously, Dr. Witty had been at the University of Kansas, serving as associate professor of psychology in 1924-25, then becoming full professor as well as director of the psycho-educational clinic from 1925-30. His degrees are from Indiana State and Columbia.



Charles B. Park

CHARLES B. PARK, whom the editor interviews (p. 45) on the teacher-aide study in Michigan, is director of special studies at Central Michigan College, and his No. 1 job at present is directing a research project on better utilization of teacher competencies. Mr. Park likes pioneering. In his school superintendency days (Reading, Mount Pleasant, and Bay City) he promoted the Parent Institute Plan in conjunction with the W. K. Kellogg Foundation and instituted one of Michigan's first central school kitchens. He inaugurated early programs in driver training, community canning, and visiting teacherships.

J. H. HULL (p. 41) is superintendent of Torrance Unified School District, Torrance, Calif. Like the majority of Californians, he wasn't born there, but he did get his A.B. at the University of Redlands and his Ed.D. at the University of Southern California. His master's is from Colorado State College of Education. Dr. Hull was a teacher, principal and superintendent in Colorado before moving to



J. H. Hull

Corona, Calif., in 1939. There he was English instructor and drama coach in the high school and later assistant superintendent and business manager of city schools. One of his hobbies is the training and racing of homing pigeons, another, trout fishing. He is the author of numerous articles on public relations, industrial relations, and personnel relations and likes to read in those fields.



Joseph O. Loretan

JOSEPH O. LORETAN doesn't think children need to have their educational opportunities limited just because they live in a big city (p. 58). He was the founder and first editor of the *New York Supervisor*, official organ of the New York Principals Association. He has been associated with the New York City school system since 1924, as teacher, assistant principal, elementary and junior high principal, and since 1947, as assistant superintendent in charge of two school districts in the Bronx.

DON A. ORTON, who wrote the article on merit rating on page 70, has been dean of State College of Education, University of Utah, for three years. Dr. Orton was born in Utah, took his M.S. at Ohio State, and his Ed.D. at Harvard. From Ohio State he went to Idaho to take a combined teaching job and principalship of a rural high school district, but he was soon back at the University of Utah as instructor and assistant professor. He spent two years as director of education at New York State College for Teachers, Albany (1950-52), before returning to Utah, where he took his undergraduate training.



Don A. Orton

As deputy superintendent and director of the instructional program of Stockton Unified School District, Stockton, Calif., DONALD R. SHELDON (p. 69) was delegated the responsibility for setting up educational specifications for a school building program amounting to more than \$17 million. Mr. Sheldon spent a number of years as school administrator in Arizona and while there served as president of the Arizona Education Association and the Arizona School Administrators Association. An interesting aspect of his professional career was his service as chief education officer in the city of Munich and in Oberbayern (southern half of Bavaria). He started 1008 elementary schools with 4405 teachers and 244,764 pupils in this area. He held the rank of major in the army for the period of 1943 to 1946.



Donald R. Sheldon



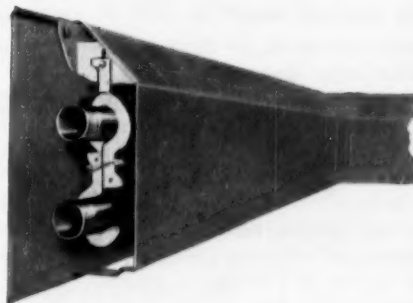
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OPINION POLL

Superintendents see educational values for pupil participation in charitable fund drives—but disadvantages, too

A nationwide sampling of superintendents' opinions by The Nation's Schools

A MAJORITY of superintendents—far from an overwhelming one—see some educational value to be gained by pupils' participating in community charitable drives, such as those for the Red Cross, the March of Dimes, the United Fund, or the Community Chest.

Struggling out as attempts to tie the school more closely to the important activities of the community, these drives have now become such a large part of the school program that educators have recently been asking questions like this: "Is there really an educational value to be gained in turning students loose collecting funds for worth-while causes? And, even if there is *some* value, does it overpower the disadvantages that spring up in activities of this kind?"

FAVOR OFFICIAL POLICY

Almost two-thirds of the superintendents who answered the recent nationwide opinion poll conducted by The NATION'S SCHOOLS favored establishing official board policy with respect to pupil participation in drives of this type.

As one superintendent said, "This presents a real dilemma; you're bound to be wrong if you take a positive position either way." There's not much argument that pupils ought to

be guided by schools to develop their charitable instincts. Even from a cold, materialistic standpoint, one might argue that pupils ought at least to know what they're in for when the doorbell rings in the years to come and the lady down the street you've never spoken to before asks you for \$25. And few people, except extreme classicists, would argue that the schools ought not to enrich the curriculum with practical affairs taken directly from the stream of community life. But—with all this true—what is the real result?

Most of the superintendents believe work on these charitable drives constitutes worth-while activity for the pupils. Most of them would say, of course, that the way in which the drive is carried out determines how much real educational value there is. Furthermore, no one claims that all of the drives are of equal value to children. The test—and obviously a hard one—is: "Is educational value the primary interest?"

Schools seem to be coming around to the "one drive only" idea which has gained in favor in so many communities now with united appeals and community chests representing a number of local and national charities. Most schoolmen resent the schools' being used as collection agencies, and

they point out that, no matter how great the educational value in these things may be for children, they surely have been realized after two or three drives have been conducted during the year. There is a decided limitation to the value to be gained from Drive No. 13, for example.

Limiting the amount of participation apparently is where the school board comes in. Most administrators favor a board policy which limits the number of drives that will be featured in the school program itself. Some schools have experimented with rotating the different charity appeals each year, with a certain number accepted each year and without repeaters. Other school boards have consistently tapped the same one or two drives for their approval. This is a difficult decision to make, at best. As a superintendent wrote: "It is difficult to do it on any basis that doesn't appear arbitrary. We try to take two drives each year with which children can most easily and directly identify themselves; we approve only these two and no more."

VOICE STRONG OBJECTIONS

Strong objection to the drives is voiced by some of the superintendents answering the questionnaire. Some openly advocate, "Eliminate all of them." Teachers have a tendency to feel pressured, pupils are exploited, and too much school time is consumed with pursuits which at best are secondary to the central purpose of education: These are some of the attitudes expressed by administrators. Others object because they believe many children are persuaded to contribute who cannot really afford it. As one superintendent said: "Most of the contributions come from *parents'* savings and not from the children themselves. In the end, the parents must give on three or more occasions; home, office, school, club. The answer to the drives might be different if children would learn to give freely from their own allowances or earnings, but such is rarely the case."

Is the trend toward more drives of this kind, or fewer? Chances are, no one really knows. But two opposing forces apparently are at work. Undoubtedly more organizations each year are trying to take advantage of the schools' captive audience. At the same time, more school boards each year adopt rigid policies concerning student participation in the drives.

Do you believe educational values are gained from drives conducted in the school for the March of Dimes, the Red Cross, the Community Fund, and other charities?

Yes.....57% No.....43%

Do you believe the boards should—by official policy—approve certain drives and not others?

Yes.....62% No.....38%

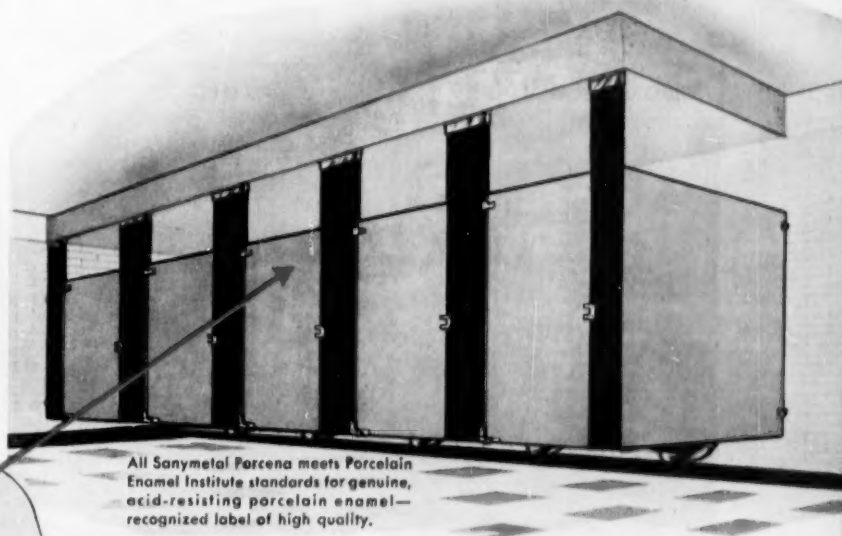
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LETTERS FROM CONSULTANTS

Author of *Megascopes* Writes From Africa

Pretoria, South Africa
May 9, 1955

Dear Friends in the U.S.A.:

Since our arrival March 10 we have visited about 100 schools of all kinds

(native, colored, European [white], primary, secondary, technical, three of the eight universities), have met with and talked to teachers associations, principals associations, and parents as-



United Press Photo

Natives work in the warehouse at the Sallies Mine near Johannesburg, Africa. An ounce of gold is extracted from 5 tons of gold bearing rock.

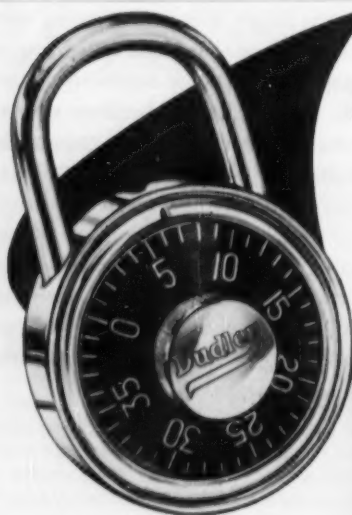
sociations. We have had a most cordial reception everywhere.

If I am typical of Americans, I must say that we know very little about this country, and they know very little about us. South Africa is a complex nation, with so many complicated problems that solutions seem almost impossible. I am sure that the policies of the present government are not right, or calculated to solve the problems. It seems to us that virtually every policy is having the effect of aggravating problems. The problems of race relations overshadow everything else, and the more one learns the less assured he is that he has the answers. I could have been more positive six months ago in Colorado than I am now.

Especially tragic is the cleavage between the English speaking and the Afrikaans speaking segments of the white population, which totals only two and three-quarters million. The English group is about 40 per cent of the white population. The present government is controlled by the Afrikaners, under the Nationalist Party. The United Party, generally the English group, is not very effective as an opposition party. But in time, as the government gets more repressive and highly centralized, I think a reaction will set in. The cabinet has immense powers and appears to me to operate like a bunch of storm troopers. (The blacks total from eight to nine million, colored [mixed], one million, and Indians, a half million.)

I was astonished at the high degree of centralization in education. Each province is run sort of like a big city school system. No local boards such as we have—although in three provinces there are school committees, mostly advisory. No local superintendents. Each school is in direct relationship to the provincial education department. Virtually no citizen participation in education. I am more deeply devoted to the American school board system than ever, with only the reservation that too great decentralization should be guarded against.

I thing in the United States we are on the right track, with a trend toward fewer and more defensible local units, with emphasis at the state level on leadership, service and research rather than strong administration. I still believe most of our states are too weak at the state level, but I would hate to see them as strong as the South Africa provinces. (Cont. on p. 10)



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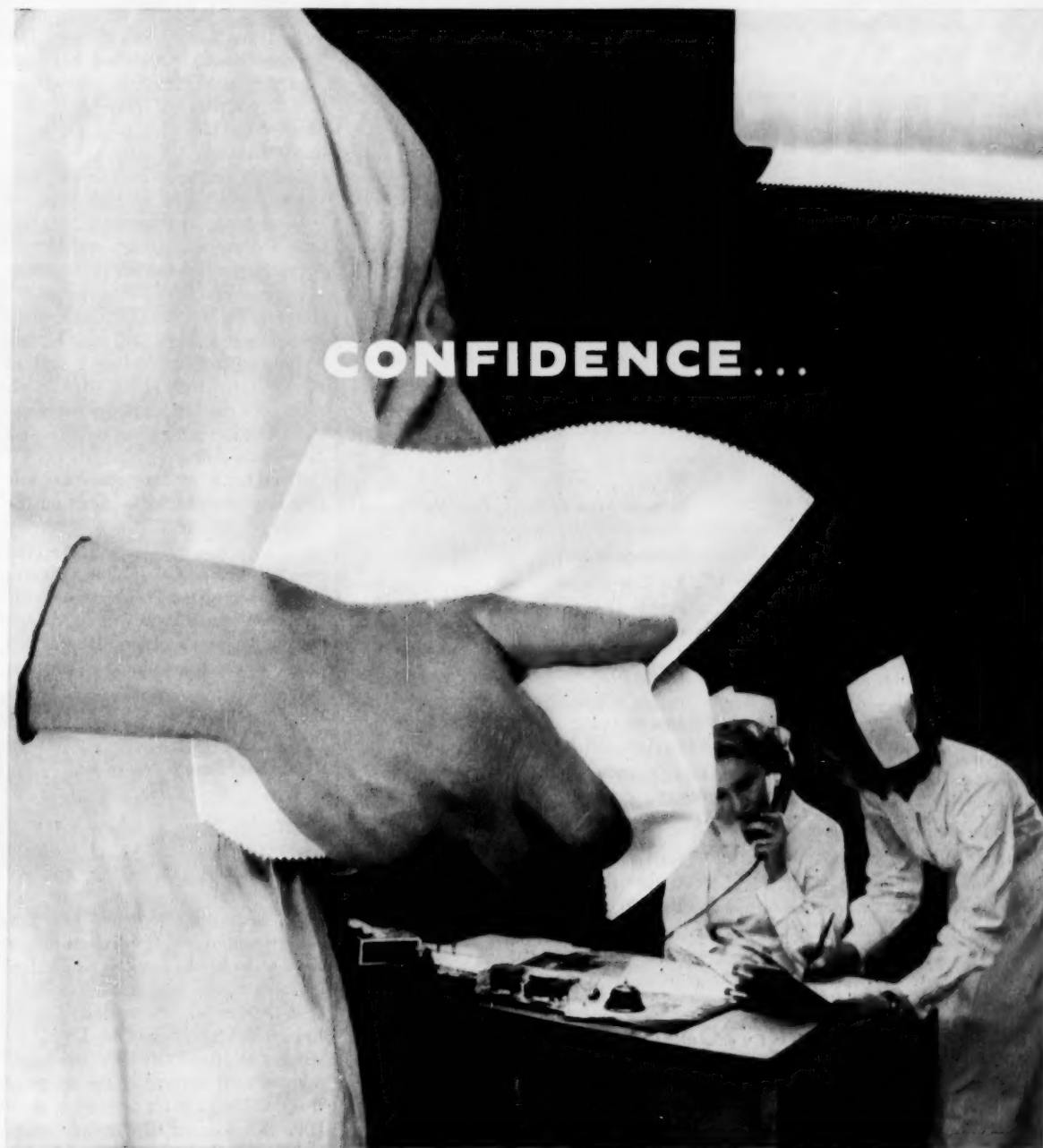


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This is a beautiful land in many ways. It has a marvelous climate. The African (black) population is a happy, sturdy race; how they can be is a miracle, for they are really kept down. Most of the bitterness is of the white man's making.

Sightseeing is part of our trip. We've been down a gold mine at Johannesburg, surf bathed in the Indian Ocean, will go to the biggest diamond mine in the world tomorrow (the Premier Mine, where the Cullinan diamond was found, 20 miles from Pretoria), next week will visit Kruger National Park for five days, and in July will fly 1000 miles to Victoria Falls. We plan to return to the States about October 20, plus or minus a few days—later probably than earlier.

Thanks for sending the magazine. I liked your editorial in April on the President's proposal.

As ever,

Cal [Calvin Grieder]

P.S. We shook hands with Adlai Stevenson yesterday at a press conference at Jan Smuts airport. He was surprised to meet a Colorado Democrat in South Africa.

John Guy Fowlkes Describes Easter in India

New Delhi, India
 April 11, 1955

Dear Friends:

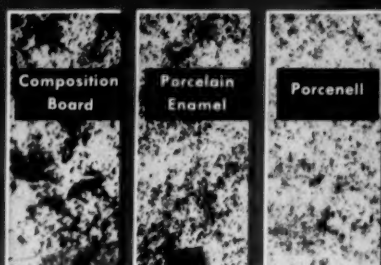
Yesterday was Easter, and we thought of all of you and home; our clean, beautifully decorated churches, our own minister, familiar traditions, familiar faces, and familiar food. How different Easter was for us in India.

We went to the oldest English Episcopal church in Old Delhi for services at 10:30 a.m. We arrived 15 minutes early because of the imagined crowds. The church's capacity is about 500. We counted nine people seated when we walked in and about 33 when the service began—12 of whom were the choir. It was indeed weird sitting there waiting for the service to begin because outside (all windows were open, 10 ceiling fans were going, the temperature was 102°) we could hear the exotic music of snake charmers, the Hindi cries of newspaper boys and food vendors, and the normal buzz-buzz of business as usual. The service was sad, sincere and pathetic. Even when we sang "Hallelujah," it was down—oh! so down. The minister was a serious young Britisher with a

(Continued on Page 124)

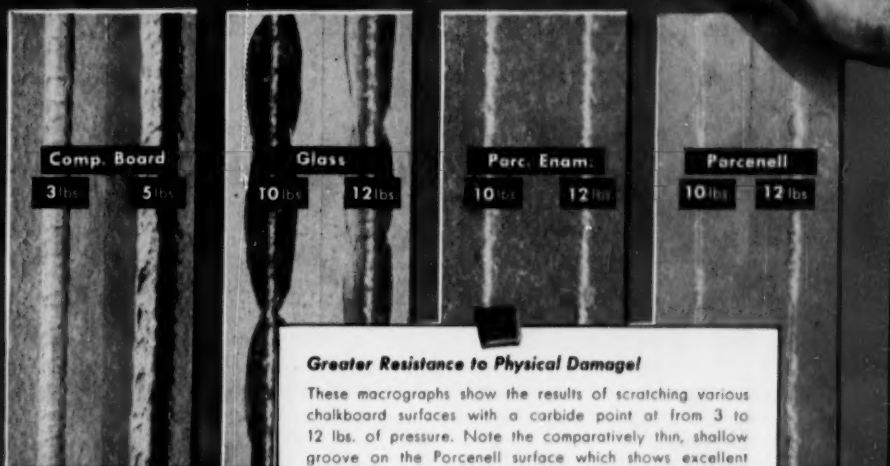
The macrographs shown below are the results of tests made at an independent laboratory. They are reproduced here as evidence of the superiority of Porcenell . . . the entirely new and different Chalkboard. Benjamin Electric Mfg. Co., for many years a leader in Better School Lighting, now brings you this further advancement in chalkboards for better seeing and improved instruction.

Lab Tests Prove Superiority of NEW CHALKBOARD!



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Macrographs of chalkmarks on three chalkboard surfaces show dark areas as "valleys" and lighter spots as "peaks." Note that Porcenell has no extreme high or low spots, clearly pointing out the greater evenness of this surface. That means chalk "flows on" more evenly without effort, resulting in a clearer, easier-to-see image. It also means erasing without pressure, because there are no chalk traps to leave "ghosts."



Greater Resistance to Physical Damage!

These macrographs show the results of scratching various chalkboard surfaces with a carbide point at from 3 to 12 lbs. of pressure. Note the comparatively thin, shallow groove on the Porcenell surface which shows excellent resistance to scratching. Here is proof of Porcenell's greater resistance to physical damage, such as vandalism, accidental damage by maintenance people or typical schoolboy mischief.

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Roving Reporter

Nursery Cares for Youngsters on P.T.A. Nights • School Works to Remove

Temptations to Break Windows • Teen-Agers Attend Cushion Pop Concerts

WHEN PARENTS' ATTENDANCE at P.T.A. meetings began to fall off noticeably and discouragingly, teachers in the Dillard Elementary School, Tampa, Fla., looked around and began to take steps. A survey brought out the real reason for parents' nonattendance at meetings. It was that they had no one with whom to leave their small children.

With the aid of pupils in the upper grades, a nursery was therefore set up at the school, complete with bassinets and play pens, some donated, others constructed by the boys. Picture books, toys and games were collected. Now on P.T.A. nights mothers can bring their young children to the school and have them cared for in the nursery by student volunteers under the supervision of a teacher. Parents are delighted, teachers are pleased, and the children are safe and well cared for.

THE TWO TEMPTATIONS in the breaking of school window panes, according to Principal Thomas J. Farrell of the Isaac Arnold Elementary School, Chicago, are the simultaneous presence of perfect targets and perfect missiles—shining school windows and stones. Add to these the compulsion which a young boy feels when confronted by these two factors.

During 1952-53 the Arnold school had 235 window panes broken. In 1953-54, there were only 74 broken. The secret of this drop has been an ingenious plan whereby Principal Farrell has caused the missiles to be removed and the temptation thereby to be decreased.

Under the leadership of Oriano Nomellini, the 7A teacher, acting as the coordinator of antivandalism activities, teams of upper-class boys have been put to work picking up the stones, bottles, bricks, concrete chips, and other potential missiles which litter the streets, alleys and sidewalks around the school and the playlot across the street. As a result of the

clean-up campaign, only 32 windows were broken during the first eight months of the 1954-55 year.

The breakage of these 32 windows was accomplished by what Mr. Farrell calls "creeping stones" which are "stones, abetted by the feet of small boys, which creep into the school area after we have cleaned up."

Twenty-eight boys in the sixth, seventh and eighth grades comprise the clean-up squads. They are equipped with identification belts and buckets and deposit their collections in big ashcans inside the boiler room. The ward superintendent is cooperating by furnishing the trucks to haul the debris away.

The project fits in well with the board of education's drive to develop "understanding and appreciation of public property."

THERE'S NOTHING like seeing yourself in print—your name, your story, your drawing, your joke—to encourage budding journalists of whatever age. The *Nebraska City News-Press* in its Sunday edition carries a "Children's Journal," consisting of a page made up of drawings and stories by grade school children. School principals submit the material from which the editor makes his selection. A typical "Journal" at Easter time contained pictures of airplanes and an Easter rabbit, two poems, a list of safety rules, and several stories whose subjects ranged from Babylonia to Koala bears.

EACH YEAR in Springfield, Mass., the city's symphony orchestra gives a special concert for school children, which takes place during school hours. The concerts are open to pupils from the fourth grade through high school. When it was noted that high school teen-agers were not attending in any great number, Richard C. Berg, director of music education, began to look for the reason. He decided that perhaps the specialized needs and inter-

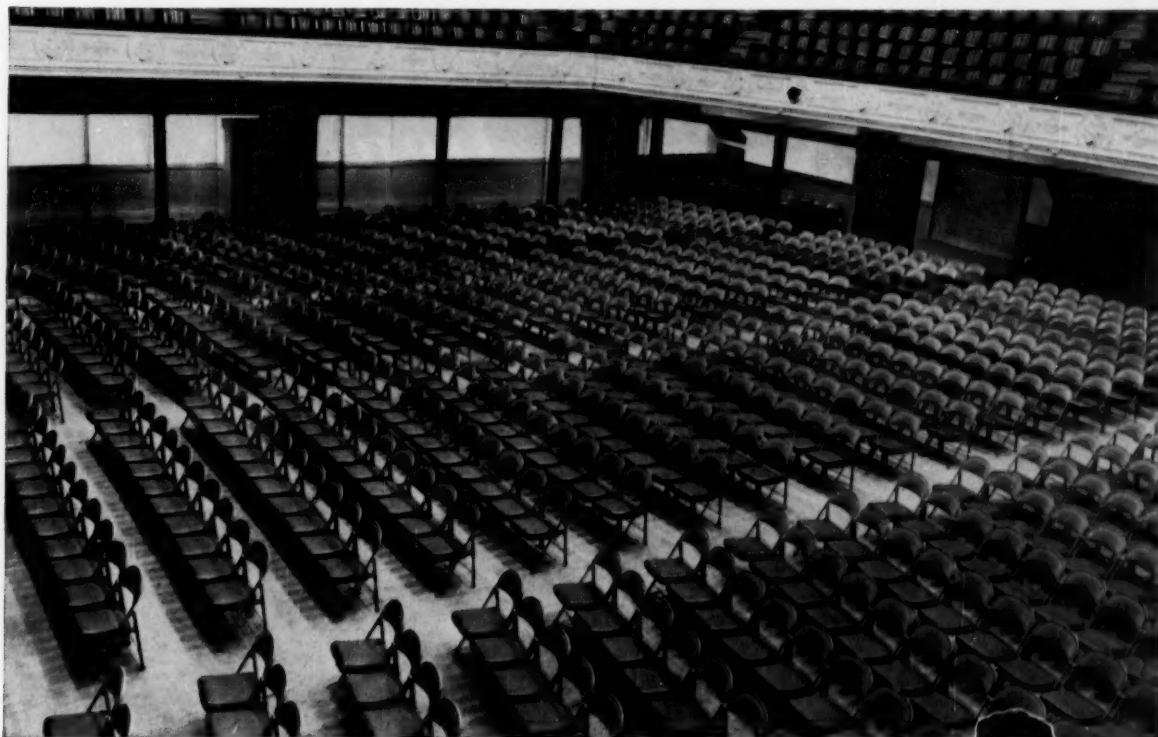
ests of teen-agers were not being met, and a plan was worked out to attempt to woo their attendance.

Now concerts for teen-agers are given in the evening, which seems a bit more sophisticated. Programs are planned that appeal to the social as well as the musical interests of the students and include music ranging from popular favorites, such as excerpts from "South Pacific" or some current stage attraction, to overtures and symphonies, such as "Oberon Overture" by Weber or the "Clock Symphony" by Haydn. At the first concert the soloist was Paul Nero, jazz virtuoso of the violin and composer of "Hot Canary," whose name and music are well known to teen-agers.

A committee of students from each high school helps plan the publicity, ticket sales, decorations, chaperonage and coke bar arrangements. One of its suggestions was that cushions be substituted for chairs; this makes it easy to clear the floor for dancing after the concert.

The "Teen-Age Cushion Pops Concerts" have proved to be just what the teen-agers needed and wanted, and school authorities believe that they are an excellent means for bringing boys and girls of this age together in a wholesome and stimulating activity.

THAT TREES are useful as well as beautiful was the science lesson that Glenna Warden, first grade teacher in the Fairview School at Beatrice, Neb., wanted to impress upon the class. To do so she had the children bring various objects to school illustrating different uses for wood. These had to be small enough so that they could be fastened to a bulletin board and included such things as a piece of doll furniture, a pencil, a ruler, gum, toothpicks, nuts, a newspaper, cork, clothespins, and so on. Other lessons brought out the fact that trees provide shade and are useful in building fires for warmth and cooking.



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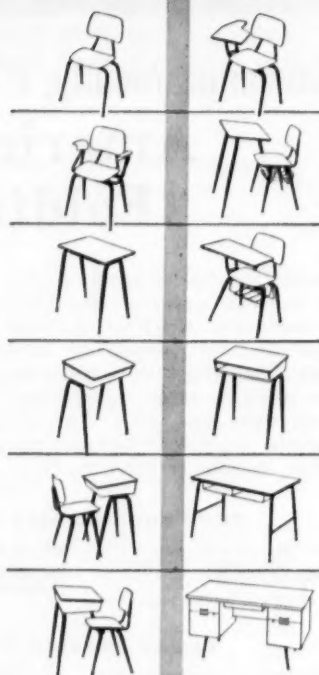
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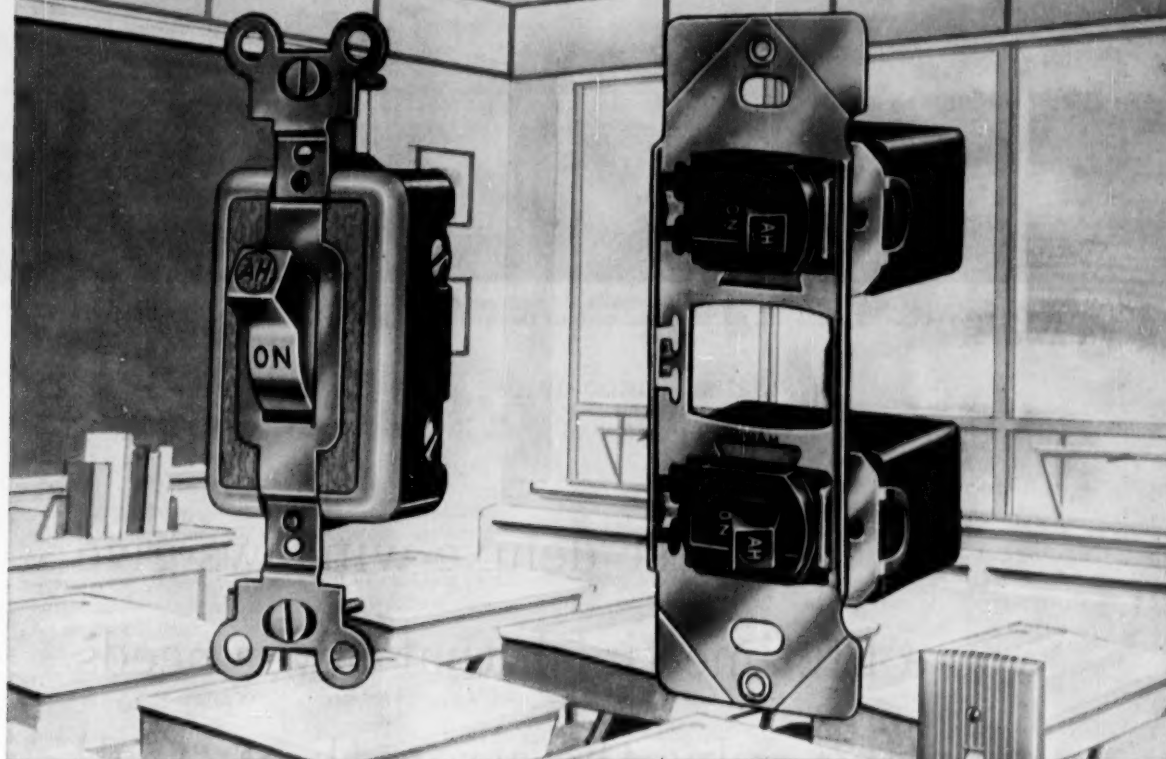


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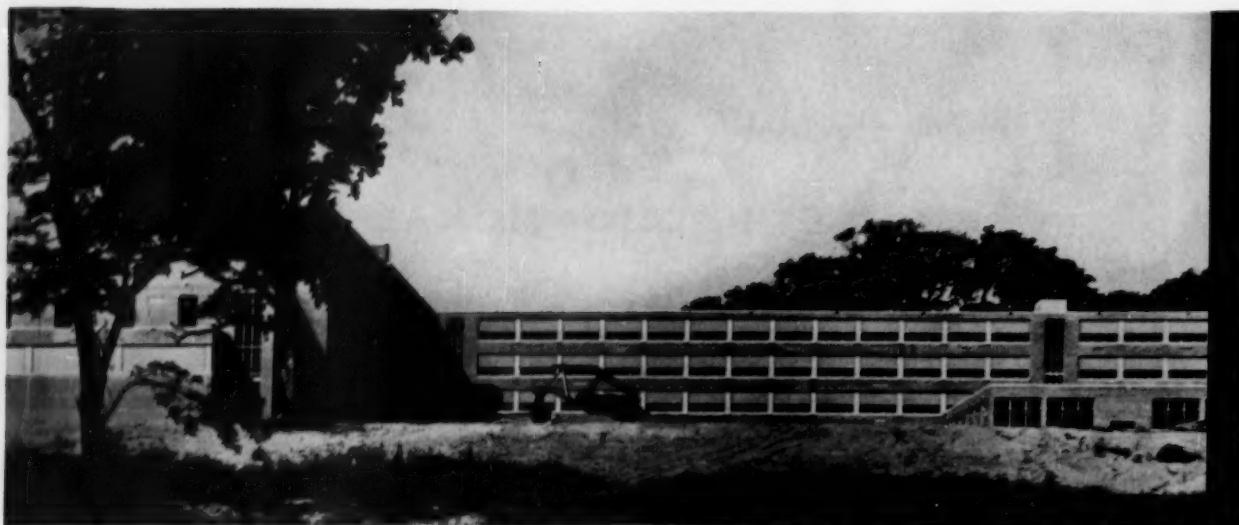
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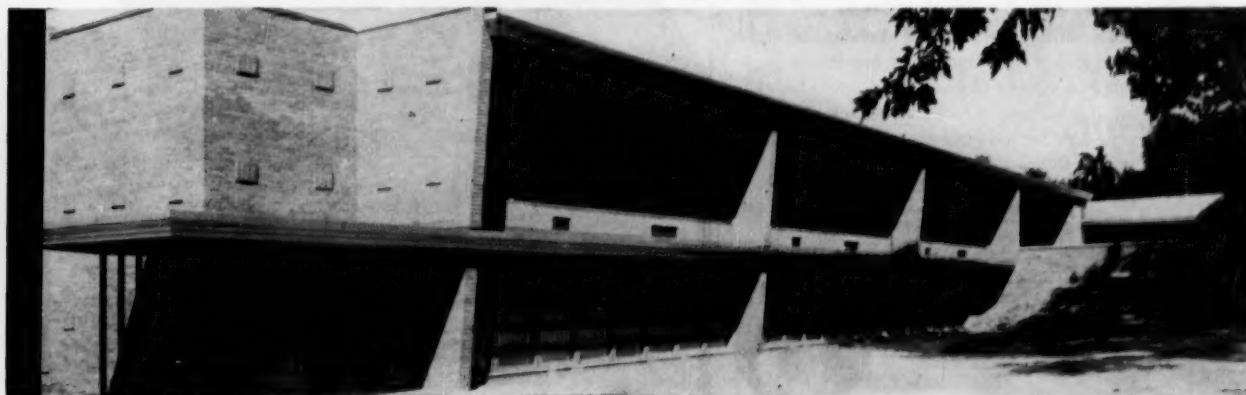
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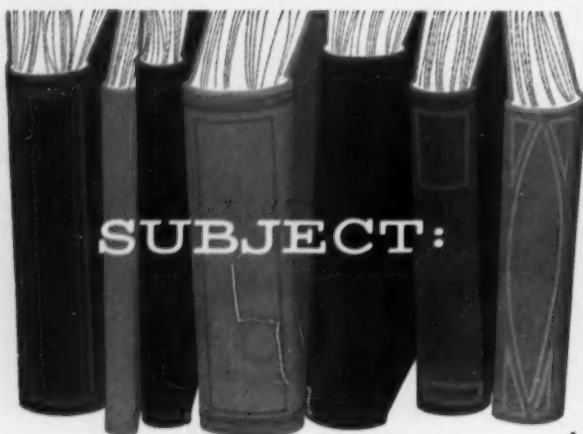
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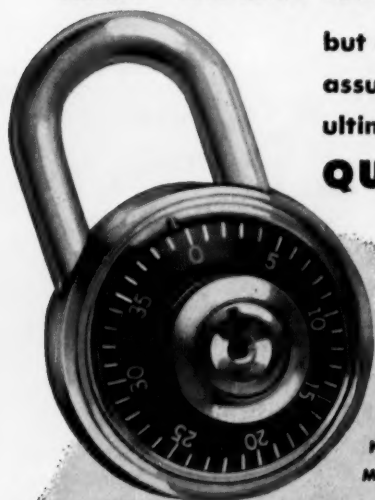
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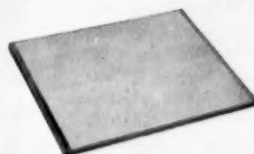
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Crane Plumbing as used in the new Norman High School, Norman, Oklahoma. Drinking fountain is Clearstream 6-515. Counter-top sink installation in Home Economics Department is Crane 5-131 (cast iron). Washroom lavatories are Norwich 1-150 and urinals are Correcto 7-87.

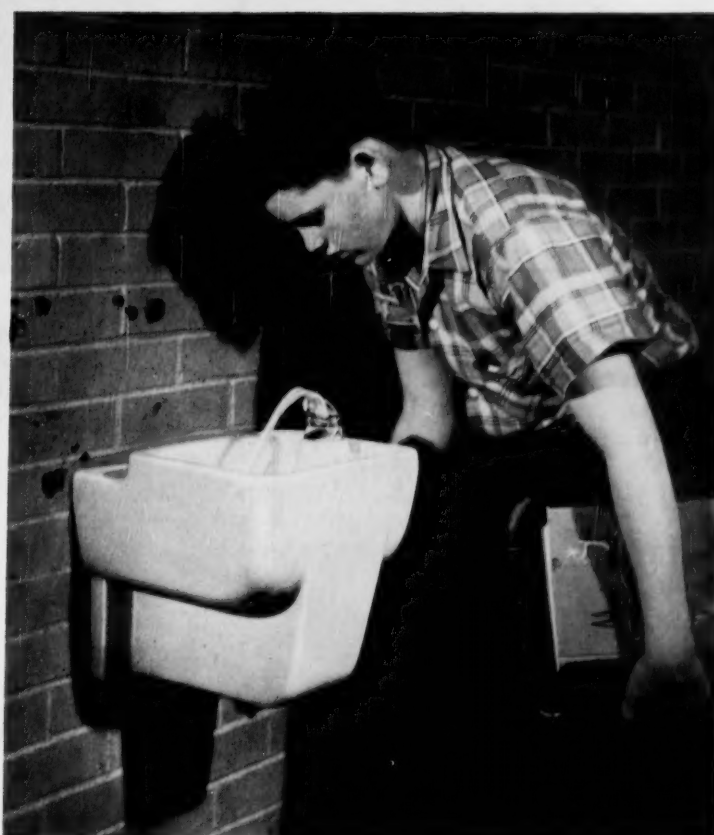
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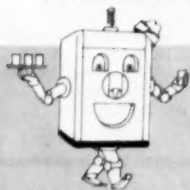
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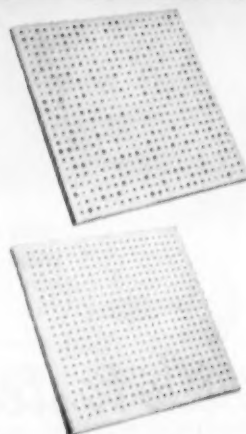
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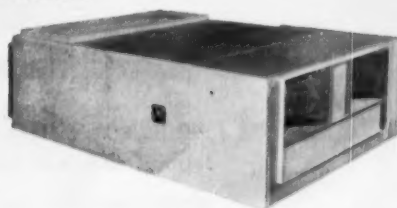
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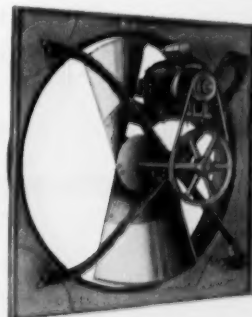
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Looking Forward

Flesch Flails All Schoolmen

MAKE no mistake about it—"Why Johnny Can't Read," authored by Austrian-born Rudolf Flesch, is primarily an attack upon public education and the teaching profession. It is anything but an honest analysis of current methods of teaching reading.

Mr. Flesch accuses the teaching profession of prejudice, obstinacy and stupidity. He claims we are gradually destroying democracy in this country, and he uses a left-handed method of insinuating that exponents of the modern methods of teaching reading in this country are suspect.

Mr. Flesch's book reveals that he knows very little about what actually is happening in schools today but that he knows a great deal about the art of propaganda.

The attack upon the integrity of educators is pulled into his book by such phrases as these: "They [authorities in the field of reading] are firmly committed to the application of the word method, and it would be *inhuman* to expect from them an *objective* point of view. (Italics ours.)"

"Our schools *obstinately* (italics ours) persist in using another method that doesn't work.

"Our 'scientific' educators simply don't *want* to know the truth."

Mr. Flesch indulges in Fourth of July oratory in the same manner that a weak vaudeville act tries to win applause by concluding with a patriotic scene. He refers to Abraham Lincoln in his log cabin and to Andrew Johnson, the illiterate tailor's apprentice who taught himself to read, and then asserts:

"I am not dragging in Lincoln and Andrew Johnson gratuitously. There is a connection between phonics and democracy—a fundamental connection. Equal opportunity for all is one of the inalienable rights, and the word method interferes with that right."

Mr. Flesch harps on the same theme a few pages later, with this accusation: "An Andrew Johnson, with great gifts and perseverance, may still become President today; but the odds against him are now

immeasurably greater. I say, therefore, that the word method is gradually destroying democracy in this country; it returns to the upper middle class the privileges that public education was supposed to distribute evenly among the people. The American Dream is, essentially, equal opportunity through free education for all. This dream is beginning to vanish in a country where the public schools are falling down on the job."

Knowing that some readers can be encouraged to jump to false conclusions, Mr. Flesch infers that there are some who consider reading experts as subversive. He does so by protesting his own innocence of such thoughts. He writes:

"I am not one of those people who call them [the reading 'experts'] un-American or left-wingers or Communist fellow travelers. All I am saying is that their theories are wrong and that the application of those theories has done untold harm to our younger generation."

What are the countermeasures to such propaganda?

Constructive suggestions for the school administrator are offered by Paul A. Witty in his article in this magazine (p. 35). We are especially indebted to Dr. Witty for giving generously of his time to document the overwhelming evidence against Mr. Flesch's accusations and for his concise description of the currently accepted methods of teaching reading.

Divorce Recommended

THE impending resignation of Mrs. Oveta Culp Hobby as secretary of the Department of Health, Education and Welfare is but the unavoidable consequence of a shotgun marriage that merged these three fields of government service. Her predecessor and the first occupant of that post in the President's cabinet, Oscar Ewing, also was unacceptable to education and medicine. Whoever will succeed Mrs. Hobby will find the going equally difficult.

In Mrs. Hobby's case, her charm and her hats were not enough to qualify her as the federal government's chief administrator of its education interests. But

regardless of her lack of competencies, it will be virtually impossible to replace her with someone who is fully qualified to operate as an administrator in all three of these highly specialized areas of health, education and social welfare.

The history of the Federal Security Agency has thoroughly demonstrated that education, being much the smallest division, gets the worst of the deal.

One argument that was advanced for education to be represented in the President's cabinet, even as a minor interest of a great department, was the assumption that it would bring the President in closer touch with the needs and purposes of education. The advice he has received from Mrs. Hobby hardly justifies that assumption.

The only logical solution is one that seems to have little chance of being realized, namely, the selection of a national board of education to nominate the commissioner of education and to advise and evaluate the operation of his department.

Under the present pattern, with education completely involved and embroiled in the partisan political aspects of the federal picture, the professional status of the staff of the U.S. Office of Education is unavoidably discredited and its opportunities really to be of service to public education are increasingly nullified.

Commercial TV Is Not Enough

WHAT Alcoa chooses to do with its money for an advertising campaign is strictly its own business. What it has done since December 1951 in sponsoring the Edward R. Murrow "See It Now" program has brought both admiration and gratitude from its audience of 8 million viewers. Alcoa stuck by its program in spite of criticisms from Sen. Joe McCarthy and in spite of the fact that any program so liberal and frank in its fact finding creates enemies as well as friends.

It can be presumed, from statements the company has made earlier, that one factor causing withdrawal of support for the program as of July 5 is the reluctance of any merchandising organization to sponsor a program that deals with real issues and live controversies. And herein is the moral of this story, *i.e.* that commercial TV as a news or educational service always is at the mercy of its sponsors. On the other hand, if "See It Now" were a program of the *printed* word, the sponsoring publication would continue its courageous editorial policies and receive the sustained support of its readers, without embarrassment to its advertisers.

Alcoa's decision illustrates the real weakness of commercial television as an educational medium. There can be no unhampered teaching over the airwaves unless the programs are planned and controlled by a nonprofit agency pledged to maintain the program for its educational values and not its ability to sell a product.

One Man's Job

WHAT is the job of the president of the school board? Does the community and the law of the state expect him to act as a one-man grievance committee?

Under the heading "Morale Gets Lift in City's Schools," a news story in the *New York Times* declares: "Even a custodial worker, classroom teacher, or assistant principal now may go directly to the president of the board of education and air his complaints or problems."

The news story describes how the new president of the New York City Board has been meeting in weekly sessions with principals and expects later to meet with teachers and parents. "From these face-to-face meetings, the president has received many justifiable complaints, and he has acted upon them to improve school conditions. Nothing quite like it ever has happened in the school system," reports the *Times*.

The enthusiasm of the new president of the New York school board is understandable, and his desire to get a firsthand picture of how the system operates is indeed commendable. But—we'd like to raise the friendly question as to whether it is the unique function of the president of the school board to sit as a one-man jury.

The president of the board is only one of several duly elected members of the group, and the reports and grievances being reported to the president are of equal concern to every other member of the board.

The New York school system has more than 40,000 teachers and noncertified employees. Whether the president is getting a true picture of morale (good or bad) in the New York system from those who seek an audience with him is questionable. More serious, however, is the assumption that a school board president, acting as an individual, can and should give a good share of his time to personal investigation of personnel problems.

The laws of New York State with regard to the legal authority of its school board members are similar to those of most states. They anticipate that a school board today should be concerned primarily with policy making and evaluation but should delegate to trained professional people the general administration of the school system. The New York statute is quite clear in its stipulation that board members have no legal authority as individuals, although the board may occasionally delegate authority to a board officer.

We are inclined to think that the total interest of the school district is best represented when all members of the board are privileged to hear the same testimonies and read the same reports and consequently base their conclusions on the same kind of evidence.

The Editor

THE NATION'S SCHOOLS

**"Why Johnny Can't Read," by Rudolf Flesch,
exploits prejudices**

PUBLIC IS MISLED ON MEANING OF READING

The editor interviews PAUL A. WITTY, professor of education, and
director of psycho-educational clinic, Northwestern University

HOW does one tell a gullible public that it is being exploited by a biased writer—as is the case with Rudolf Flesch and his book "Why Johnny Can't Read"?¹

It will take time and patience for parents to learn that Mr. Flesch has mixed a few half-truths with prejudices to capitalize on two misconceptions. The first is his superficial notion as to what reading really is. The second is his misrepresentation as to how reading is taught.

The discussion that follows will be more than a refutation of Mr. Flesch's assertions. After all, parents' interest in this book is merely evidence of several problems in public education. These include: (1) failure of our public relations program to give parents a real understanding of how reading is taught today; (2) the inability of some citizens to recognize that Mr. Flesch's book is but a part of a general attack upon public education—and, for him, a profitable one; (3) some shortcomings not only in our teaching of reading but in our total instructional program—for which the causes are not in our methods but in our lack of teachers, classrooms and adequate supplies and equipment.

Seeking more facts and insights on these problems, we interviewed Paul A. Witty, professor of education at Northwestern University and director of the psycho-educational clinic there, one of the nation's leading authorities in the field of reading.

It seemed to us that Mr. Flesch was deliberately misrepresenting the problem, paving the way for his drills and

formula and his mechanical definition of reading. In the first few pages of his book he writes: "Teach the child what each letter stands for and he can read" (p. 3).

And so our first question to Dr. Witty was:

What does Mr. Flesch mean when he uses the term "reading"?

Dr. Witty: Mr. Flesch regards reading as mere pronunciation of words. He does not seem to be interested in the meaning or the understanding of words. He makes this very clear in the story he tells about himself (p. 23). He writes:

"I once surprised a native of Prague by reading aloud from a Czech newspaper. 'Oh, you know Czech?' he asked. 'No, I don't understand a word of it,' I answered. 'I can only read it.'"

Later (p. 103), he describes a group of first grade children reading a newspaper and states: "But the fact is, and I testify to it, that those children read what was in the paper. They were perfectly able to pronounce words they had never seen before."

In describing one child, he continues: "Needless to say, that 6 year old child hadn't the slightest idea of what the word meant. How could he?"

Then what is reading?

Dr. Witty: Reading is defined best, perhaps, as the process of obtaining meaning from printed materials, but we do not get the meaning of a word—invariably or generally—from its spelling or from its pronunciation. To me, failure to obtain meaning is the most outstanding outcome of faulty reading instruction. The child who is not encouraged to find appropriate

meanings in various ways, such as by examining the context, is not being taught to read effectively. Rather, he is engaging merely in parrot-like routine exercise.

Mr. Flesch ignores and sometimes ridicules much that experimentation has divulged in the last 20 or 30 years about child growth and development and instruction in reading. For example, he categorically denies that there is such a thing as the child's readiness for the various steps in the process of learning to read. He discounts or ignores the importance of the interest factor and of goals, purposes and needs in the reading process.

Why does Mr. Flesch so completely detour around the subject of readiness?

Dr. Witty: Since Mr. Flesch is interested only in word recognition and pronunciation, there is no place in his scheme for readiness (except insofar as teachers prepare themselves to use a system such as Hay-Wingo). To those of us who believe that children should get meaning from reading, readiness plays an important rôle in what we do, not only in the school but also in the home.

What are some of ways in which a child gets "ready" for reading?

Dr. Witty: The development of the child's vocabulary built upon his own experiences is one of the first steps in getting him ready to read.

Another step is to encourage the child to recall and discuss that which he observes. Listening to stories will often stimulate his interest in reading. And the cultivation of the child's ability to tell a story from pictures and

¹ Flesch, Rudolf: *Why Johnny Can't Read, and What You Can Do About It*, New York City, Harper & Brothers, 1955.

on occasion to relate incidents from his own experience will help him prepare for reading. Exercises designed to sharpen visual and auditory discrimination will also aid in getting him ready for reading.

Many specialists believe that the experience chart—a simple story recorded on a chart for an individual or a group—provides a good way to couple silent reading with firsthand experience. After children's simple stories are read from charts, the words are then placed upon cards. The teacher makes sure that the children know the meaning of the words and are able to pronounce them correctly. There are other items too, such as the provision of extensive firsthand experiences and the stimulation of interest in books, which concern the teacher who is preparing the child for meaningful reading.

Is phonics instruction given in schools today?

Editor: Mr. Flesch insists that phonics is not used in the teaching of reading today. He claims that (p. 12): "... the textbooks are all carefully written, so that every teacher in the land is shielded from any information about how to teach children anything about letters and sounds."

Dr. Witte: This statement is absolutely untrue as an examination of the manuals for current textbooks will reveal. Courses of study for cities also include abundant suggestions for phonic instruction. I have cited a number of such examples in the magazine *Elementary English* for May and September 1953.²

And we do teach children the alphabet, too. Knowledge of the alphabet is emphasized in good schools in connection with making picture dictionaries and with spelling. This knowledge is, of course, related to reading. Thus one sees that attention is given to phonics and letters—and even to "readiness" for phonics.

What do you mean by "readiness" for phonics?

Dr. Witte: "The teaching of phonics should begin only when the child has phonetic readiness," says Miles A. Tinker in his book "Teaching Elementary Reading."³ "This stage," continues Dr. Tinker, "is apparently reached when the child has acquired the visual and auditory discrimination adequate for differentiating between letter forms and between

letter sounds, when the child has acquired a considerable stock of sight words, when he has attained a mental age of approximately 7 years, and when he is making some progress in formal reading situations. Formal training in phonetics, therefore, should be started only after the child has progressed well along in first grade work."

Dr. Tinker believes, too, that "word analysis activities should not be permitted to become isolated activities." Research studies corroborate this position, as Nila B. Smith points out in a recent summary of investigations in this field.⁴

Phonics should be presented, as I have just said, when the child is ready for successful, useful endeavor in word analysis. Phonics training should not be separated from the reading program and introduced through isolated drills, as Mr. Flesch advocates.

How does modern psychology refute Mr. Flesch?

The method of teaching reading that stresses meaningful acquisitions is in accord with modern psychology. Mr. Flesch, on page 44, quotes Lee J. Cronbach of the University of Illinois as follows:⁵

"The good reader takes in a whole word or phrase at a single glance."

Although Mr. Flesch insists that this position is "wholly untrue," it is fitting to point out that Dr. Cronbach is of course on sound ground psychologically. We teach pupils to recognize words as units from the very beginning. We do this because of demonstrated facts about the nature of perception. The letter is not the unit of perception in meaningful reading, as Gestalt psychologists have indicated repeatedly.

Moreover, it is abundantly clear that the letter combinations give us little or no clue as to meaning. Take the word "case." There are many meanings for this word: "I thought it was so, but it was not the case." "It was a case of bad judgment." "The judge tried the case." And so on.

² Witte, Paul A.: *Phonic Study and Word Analysis*, Elementary English, May and September 1953.

³ Tinker, Miles A.: *Teaching Elementary Reading*, New York City, Appleton-Century-Crofts, Inc., 1952, p. 141.

⁴ Smith, Nila B.: *What Research Tells Us About Word Recognition*, Elementary School Journal, April 1955.

⁵ Cronbach, Lee J.: *Educational Psychology*, New York City, Harcourt, Brace & Co., Inc., 1954, p. 13.

Now the meaning of this word comes from one's experience or from reading it in meaningful context. On the printed page the meaning may be indicated by the familiar words around a new word—by its context. In some cases, the word is the unit of perception. In these instances we recognize and understand the word as a total unit. In other cases, the word is part of the context, and we react to ideas involving several words.

When one reacts to ideas (as in reading this material), he reacts not to each word or part of a word. Instead, he reacts to groups of words, and meaning is derived from this reaction.

This also is true in oral reading. As one listens to another person, he does not respond only to each spoken word but to the ideas expressed by word groups. Photographs of eye movements in silent and oral reading confirm the fact that the letter is seldom the unit of perception in meaningful reading. Thus, modern reading procedures follow modern, demonstrated psychological principles.

Is reading taught today primarily by the word approach, as defined by Mr. Flesch?

Dr. Witte: Most emphatically, reading is *not* taught by the word method as Mr. Flesch defines it. After defining this method in an absurd way, he associates this fabrication with all modern educators and specialists. One of the cardinal principles advocated in a modern program of reading instruction involves learning the natural unit of perception. This is often a group of words. Hence, the word method, as defined by Mr. Flesch, is *not* advocated.

Moreover, an effort is made today to help pupils get meaning through context, not merely by isolated repetitions of words.

We start the silent reading process by building a meaningful stock of sight words. In fact, there is, we believe, no other defensible way to begin silent reading instruction. We continue to emphasize the significance of vocabulary development—an expanding general vocabulary and specialized vocabularies as well. We believe that we should know the meaning of words. Otherwise we would be in Mr. Flesch's dilemma. After once studying Czech, he was able to "read" aloud from a newspaper, but he did not know the meaning of a single word he "read."



"The letters are there as part of the environment for learning," explains Gilbert S. Willey, superintendent of schools, Winnetka, Ill. He is referring to this second grade classroom in the famous Crow Island School. "The alphabet is not memorized in the primary grades," he declared.

"The letters are used as a guide to writing and as an aid to the teacher when a child needs help with identifying a letter. Our use of phonics is the current prevailing practice. We start out first by giving the children reading experience. Our field trips help them to build a vocabulary.

What further evidence is there that schools do not neglect instruction in phonics?

Dr. Witty: One need only examine the practice books designed for any series of readers to find that phonic training is definitely provided for, although not as a separate system. The program of phonic analysis is integrated with the other materials used in basic reading instruction.

Editor: Mr. Flesch tries to shock the public into buying his book (apparently with much success) by this astounding accusation (p. 2):

"You know that I was born and raised in Austria. Do you know that there are no remedial reading cases in Austrian schools? Do you know there are no reading cases in Germany, in France, in Italy, in Norway, in Spain—practically anywhere in the world except in the United States?"

What are the facts about reading instruction in Europe?

Dr. Witty: Had Mr. Flesch really learned to read in Czechoslovakia, instead of just pronouncing words, he might have discovered that remedial reading is a real problem there, too.

⁶The Teaching of Reading, International Bureau of Education, Geneva, Switzerland, 1949. Publication No. 113, 12th International Conference on Public Education convened by UNESCO and the International Bureau of Education.

"The Teaching of Reading" as reported by the International Bureau of Education in Geneva (1949) and published by UNESCO⁶ states:

"The coming into force of the education act of 21st April, 1948, in Czechoslovakia, has resulted in the organization of adjustment classes from one to two hours a week for groups of backward children from one or several classes.

"In Egypt and in Switzerland (Bern), not only is extra time spent on weak readers at school, but an effort is made to ensure the collaboration of the parents in the matter of improving reading.

In the following countries the tendency is to have parallel classes where weak pupils can catch up, or auxiliary classes for remedial work: Belgium, Canada (Ontario), Czechoslovakia, Hungary, Ireland, Italy, Luxembourg, Norway, Portugal, Sweden, Switzerland (Geneva), and Turkey...

"In Italy, readjustment or 'differentiated' classes are organized in the school districts where the number of backward children exceeds five per thousand. These classes are under the care of specially trained teachers and are inspected by the school health authorities...

"In large schools in Ireland, small classes are sometimes formed for slow and backward children."

Similar information about reading difficulties is cited for Austria, Bulgaria and Holland.

Editor: One gains the impression from "Why Johnny Can't Read" that there are no reading difficulties in Europe because the schools are using Mr. Flesch's method or similar procedures. The overwhelming evidence is that not only are reading difficulties being encountered in Europe, but they are being solved in the same manner as Dr. Witty and other reading experts advocate here. Increasingly, attention is given to the various factors that accompany reading retardation.

For example, the UNESCO publication previously quoted states:

"In the United Kingdom (England and Wales), individual teaching is often given by using reading matter which touches the individual child's particular interests. In the case of older backward pupils, attention is given increasingly to: (1) approach through meaning, with symbols clearly related to the pupils' own firsthand experiences; (2) the use of matter which is verbally simple without being too childish in interest; (3) purposeful reading, integrated with other activities and with everyday life."

There is evidence that difficulties in learning to read are universal and that Mr. Flesch's formula has no charm for serious students in Europe

any more than it has in the United States. Here is other evidence furnished by Dr. Witty. We asked him:

If Mr. Flesch's statement is correct, then the English language causes no reading difficulties for the children of the United Kingdom. Is this true?

Dr. Witty: A large amount of poor reading among English children is reported by F. J. Schonell in his book "Backwardness in the Basic Subjects," published in London in 1942. Another survey of children of ages 9 to 10 in Leeds showed that of 3184 children, 275, or 8.5 per cent, were two or more years retarded in reading by comparison with their mental ages, and 488, or 15 per cent, were two or more years retarded by comparison with their chronological ages.⁷

So serious is the problem in England and other countries that courses are being offered to help teachers deal with "remedial treatment of children of average or above average intelligence who are backward in reading. . . ." One may find just such an account in the *Times Educational Supplement*, Aug. 14, 1953, entitled "Backward Readers: Causes and Cures."⁸

Editor: Mr. Flesch tries the shock treatment again by these absurd statements (p. 2):

"Do you know that there was no such thing as remedial reading in this country either until about 30 years ago? Do you know that the teaching of reading never was a problem anywhere in the world until the United States switched to the present method around about 1925?"

To those who learned to read in public schools before 1925, it must be reassuring to know they read perfectly.

What do the records show about poor reading in this country prior to 1925?

Dr. Witty: No man in the history of education is more revered or respected than Horace Mann, who was the first secretary of the Massachusetts

State Board of Education. Stacking his words against the accusations by Mr. Flesch, we hear Mr. Mann reporting, in 1838:⁹

"I have devoted especial pains to learn, with some degree of numerical accuracy, how far the reading in our schools is an exercise of the mind in thinking and feeling, and how far it is a barren action of the organs of speech upon the atmosphere. . . . The result is that more than eleven-twelfths of all the children in the reading classes, in our schools, do not understand the meaning of the words they read; that they do not master the sense of the reading lessons, and that the ideas and feelings intended by the author to be conveyed to, and excited in, the reader's mind, still rest in the author's intention, never having yet reached the place of their destination."

Another educational leader in the "era of perfect reading"—those days before 1925 when America had no problems of teaching reading, according to Mr. Flesch—was Francis W. Parker. Dr. Parker agreed with Horace Mann that the extreme emphasis upon oral reading was highly undesirable. His answer to Mr. Flesch is the same as that of modern authorities today. Dr. Parker's words in 1894 were:¹⁰

"Many of the grossest errors in teaching reading spring from confounding the two processes of attention and expression. Reading in itself is not expression any more than observation or hearing—language is expression. The custom of making oral reading the principal and almost the only means of teaching reading has led to the many errors prevalent today."

How can parents help the school and the child in the preparation for reading?

Dr. Witty: Fully 40 per cent of our pupils in poor reading groups in the upper elementary school and the high school come from homes in which undesirable conditions prevail, such as unfortunate attitudes toward reading, sibling rivalry, quarreling and unfavorable comparisons of children.

The home that nourishes wholesome, sturdy growth in reading is one in which parents suggest by their own practice the values and satisfactions to be found in books. In such a home,

books are read and shared with children, and reading takes its place in a balanced program of recreation.

There is another aspect of this problem. Sometimes parents themselves read very little. Perhaps they will want to consider the amount and nature of their own reading. They might consider, too, whether they are making full use of the library both for themselves and for their children.

How well do pupils read today?

Dr. Witty: There have been many studies of the effectiveness of reading instruction in our schools today. One of the most recent studies confirms other investigations. This study was made in Evanston, Ill., where children in the elementary schools were given the same reading tests that were administered approximately 20 years ago. The children today made somewhat higher scores than did children in former years on every test. This result is quite in accord with other studies that show that children today read fully as well as did children in former years. This fact is gratifying, but it is insufficient for children today merely to attain such a status.

With the knowledge we now have and with the use of the superior materials now available, higher levels of achievement are possible in many schools. However, the results of these studies stand as a clear refutation of Mr. Flesch's statement that today children are not taught to read at all. Moreover, many more children's books are available today and are being read widely by children in and out of our schools. In many U.S. schools reading instruction is undeniably effective and indeed inspiring.

Are good textbooks for reading available?

Dr. Witty: Textbooks are superior to those of former years. After citing some of the repetitious materials in a primary textbook, Mr. Flesch states:

"All the reading books used in all our schools up through the fourth and fifth and sixth grade are collections of stuff like that. Our children learn the word *sat* by reading over and over again about a duck or a pig or a goat that sat and sat and sat. And so on with every word in the language" (p. 6).

I should like to invite the reader to examine modern readers for the fourth, fifth and sixth grades. He will find in many textbooks for these

⁷Schonell, F. J.: *Backwardness in the Basic Subjects*, Edinburgh and London, Oliver and Boyd, Ltd., 1942. See also *The Educational World: Great Britain*, Bulletin of the International Bureau of Education 27:118 (Third Quarter) 1953.

⁸*Backward Readers: Causes and Cures*, *Times Educational Supplement*, Aug. 14, 1953.

⁹Quoted from an annual school report of 1838 by Judith L. Krugman and J. Wayne Wrightstone in *Reading: Then and Now*, High Points, April 1948, pp. 60, 61.

¹⁰Quoted by Nila B. Smith in *American Reading Instruction*, New York City, Silver Burdett Co., 1934, p. 154, from Parker, Francis W.: *Talks on Pedagogics*, Chicago, Kellogg, 1894.

HOW ADMINISTRATORS CAN AID IN THE IMPROVEMENT OF READING

Here are 10 questions suggested by Paul A. Wittry for consideration by the administrator:

1. Am I informed concerning modern reading instruction—so well informed that I will be able to initiate and maintain a program of instruction that is consonant with sound psychological principles and experimental findings?
2. Am I cooperating closely with the homes of my pupils so that parents may understand the efforts of the school and assist in the program?
3. Are children in the primary grades getting a good start in reading? Is there an adequate readiness program to prepare children for a meaningful approach to reading?
4. Does my school system try to assure every child his rightful opportunity to learn to read by providing an adequately prepared teacher and the varied essential materials?
5. Is provision made in my school system for reading instruction beyond the sixth grade? Many junior high school pupils need assistance in acquiring basic habits and skills, and all pupils need guidance and direction in reading.
6. Am I encouraging a developmental program of reading instruction throughout the school system? Am I helping to make sure that books are available to satisfy the developmental needs of pupils as they mature?
7. Am I encouraging teachers to use library facilities, and am I succeeding in bringing sufficient amounts of materials to each classroom so that each child will find satisfaction in reading according to his interests?
8. Am I encouraging a critical and fair attitude toward reading throughout my school system?
9. Am I trying to help teachers to improve their own reading ability as well as their competence in teaching reading?
10. Am I encouraging my teachers and the parents in my community to examine carefully and understand thoroughly the objectives of modern reading instruction and thus to be prepared to read critically such unwarranted attacks as those found in "Why Johnny Can't Read"?

grades interesting stories with none of the simplification Mr. Flesch reports.

Continuing his exaggeration, Mr. Flesch asserts: "Our children don't read Andersen's fairy tales any more or 'The Arabian Nights' or Mark Twain or Louisa May Alcott or the Mary Poppins books or the Dr. Doolittle books or *anything* interesting and worth while, *because they can't*."

He agrees with a librarian (not identified) that publishers don't "put out any books simple enough for the first and second graders to read alone" (p. 79).

Our publishing houses will be surprised at this revelation. Harper's, the company that published Mr. Flesch's book, has, I believe, a list of books for children. There are, of course, many more excellent children's books published at the present time than in former years. These books are being widely read. In fact, if one will turn to page 212 of my book, "Reading in Modern Education,"¹¹ he will find high in the frequency of books enjoyed and read by Chicago school children *all* the titles of books Mr. Flesch alleges are not read.

¹¹ Wittry, Paul A.: *Reading in Modern Education*, Boston, D. C. Heath and Co., 1949.

Not only do children read these books; they also read many other splendid volumes that are being published today—such books as Armstrong Sperry's "Call It Courage," McCloskey's "Homer Price," Eleanor Estes' "The 100 Dresses," Marguerite Henry's "King of the Wind." Excellent biographies, too, are popular—such biographies as those written by Genevieve Foster and Jeanette Eaton, as well as series books, such as the Landmark Editions, the First Books, the True Books, and so forth.

What should schools do to improve the teaching of reading?

Dr. Wittry: I believe we should go ahead with experimentation to develop even better methods and materials than we now have for reading instruction, and we should make an effort to care more adequately for the full range of ability found in typical classes in the elementary school.¹² I think we should give increased attention to very able students who, in large classes, frequently do not have the opportunities or stimulation they

¹² Gates, A. I.: *Teaching Reading*, No. 1 in series, *What Research Says to the Teachers*, Department of Classroom Teachers, N.E.A., and American Educational Research Association, Washington, D.C., N.E.A., June 1953.

need. I think, too, that we have far too much reading retardation in our schools—in this country and in many other countries throughout the world. This reading retardation can be prevented, but not by the approach Mr. Flesch advocates. The teaching of a system of phonics alone, of course, will not remedy this complex situation. But there are ways to proceed to correct it and, indeed, to prevent the development of reading problems.

An important step involves a more widespread emphasis upon a meaningful reading program from the start, in close cooperation with the home. Such a program implies increased attention to individual needs, more adequately prepared teachers, better instructional materials designed to meet varied needs and interests, and the application of principles of learning that have been demonstrated by research in psychology and education.

Studies show that a wide range of ability and a large amount of reading retardation exist throughout high school. Undoubtedly, some critics conclude from their personal observations of the large numbers of poor readers in high school that reading ability is generally poor. This conclusion may seem to be corroborated by the fact that many pupils express

dissatisfaction over their limited reading ability and point out that little is done to help them read better. Since formal instruction in reading usually ceases after the sixth grade, there actually is little help for many such pupils in junior and senior high schools. In addition, some parents assert that the schools do not make an adequate effort to provide reading material of real interest and value to their children. We do need to extend reading instruction beyond the sixth grade, to meet the needs of pupils of widely varying abilities who now attend junior and senior high schools.

Are most gifted children guided in their reading?

Dr. Witte: No, the neglect of the superior student in the high schools is so serious that one writer was led a few years ago to conclude:¹³ "The gifted, the potential leaders, discoverers, and creators . . . are usually left to develop their own skills in their own way in terms of personal initiative alone." And they are often neglected in the elementary school!

Critics assert that, especially in the high school, English class assignments and reading requirements frequently show little recognition of the interests and needs of youth. One investigator¹⁴ recommended that "three-fourths of the selections in our current [high school] programs be replaced by selections of equally high merit that children endorse."

Guidance of the reading of gifted pupils is only one of the needs of the modern high school. In many schools reading retardation is recognized by administrators as being the "most acute problem." In colleges, too, the reading problem is being increasingly recognized. In fact, according to one report,¹⁵ "approximately 20 per cent of the young people entering our colleges and universities read less efficiently than does the average eighth grade pupil."

A great need exists in high schools today for the provision of experiences in reading of heightened interest and

of a sufficiently diversified nature to satisfy the greatly varying reading levels and needs of the pupils in every class. Certainly there is need for developmental programs in modern high schools. Effective programs should be *developmental* in the sense of offering each pupil an opportunity to make steady progress in gaining reading skills and in satisfying reading interests at various stages of growth.

What is wrong with Mr. Flesch's "system" for teaching reading?

Dr. Witte: Mr. Flesch offers his own rather elaborate complicated system for teaching phonics and suggests that parents use it to teach children to read at 5 years since "reading never starts" in our schools (p. 18). The Flesch system, like others, has the following limitations:

1. The use of this type of phonic system is extremely difficult for most 5 and 6 year old children. Children using such systems frequently become hopelessly confused and discouraged—often become clinic cases. Mr. Flesch discounts the importance of mental age and of other factors in determining the propriety of such an approach as well as the child's readiness for it. He repeatedly advances his own opinion in opposition to the experiences of teachers and research workers.

2. Such a system develops, as A. I. Gates¹² points out, a tendency in children to recognize words piecemeal. This emphasis results, particularly when the method is used apart from a meaningful approach, in very slow reading. The child is often so hampered by his attempts to sound out each part of a word that he fails to react to natural, larger perception units in oral and in silent reading.

3. The third limitation of the Flesch approach to phonic instruction is that it does not utilize other techniques that bring about quick, accurate word recognition. Children and adults often recognize words quickly as wholes, and often recognize groups of words with rapidity, too. The good reader does not see each letter or all the letters. He may, for example, respond to the total form of the word and thus be aided in recognition of it. Accordingly, a soundly conceived program of word recognition is not limited to the anachronistic phonic procedures recommended by Mr. Flesch. Instead, it is a broad program asso-

ciated with meaningful reading; it utilizes phonics as only one part of the total approach.^{16, 17}

These limitations and other errors are discussed by Arthur I. Gates, professor of educational psychology, Columbia University, in a 20 page analysis of Mr. Flesch's book available in stencil duplicated form.

Levels in the acquisition of the varied word recognition skills are set forth in my articles on phonics in *Elementary English* (referred to earlier), and a program to help children recognize words efficiently and gain independence in attacking new words is set forth by W. S. Gray in "On Their Own in Reading."¹⁶

Can parents really solve the reading problem by teaching phonics to their children?

Mr. Flesch recognizes no limitation in the phonic approach—in teaching children to read or in remedial reading. He states: "The reading 'experts' of course will say that such a program of remedial reading is much too simple. What about Johnny's emotional troubles, what about such nervous habits as reversals, what about correcting his eye movements? But my answer to all of that is phonics. Phonics is the key" (p. 116).

Mr. Flesch's book reiterates the statement that children "never really learn to read" in our schools (p. 18). Parents, therefore, must take over the job, for "the teaching of reading is too important to be left to the educators" (Preface, p. IX). This is a strong indictment of public schools, which, if it were proved to be true, might lead parents to open rebellion. We should like to know the evidence upon which these damaging statements are based. We can find no support for them. On the contrary, it appears that our schools are succeeding better than ever before in teaching children to read.

There are, of course, many needs—better prepared teachers, more adequate and improved instructional materials, and closer cooperation between homes and schools. But these needs do not include another system of phonics to be employed by parents with children at age 5 on the assumption that the use of this system will solve our reading problems.

¹⁶ Gray, W. S.: *On Their Own in Reading*, Chicago, Scott, Foresman & Co., 1948.

¹⁷ Russell, David: *Children Learn to Read*, Boston, Ginn & Co., 1949.

¹³ Miles, Catherine Cox: *Gifted Children: Manual of Psychology*, edited by Leonard Carmichael, New York City, John Wiley and Sons, Inc., 1946, p. 930.

¹⁴ Norvell, George W.: *Some Results of a Twelve Year Study of Children's Reading Interests*, *English Journal*, December 1946, pp. 531-536.

¹⁵ Triggs, Frances: *Remedial Reading: The Diagnosis and Correction of Reading Difficulties at the College Level*, Minneapolis, University of Minnesota Press, 1943, p. 3.

Local Control Means Local Responsibility

Inefficiency develops when state legislature
imposes wishes of special interest groups

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IT IS the thesis of this discussion that citizens and laymen, through their elected representatives, should continue to hold on to the right to determine who shall be educated and for what they shall be educated, but that the how and when should be left in the hands of those who are given the responsibility for doing the job. Included in the how are such items as the amount of time, the scheduling, the organization of the curriculum, and the methods to be used. If and when laymen and parents go beyond the matter of determining what shall be taught and into the field of when it shall be taught, it should either be a joint decision between laymen and professionals, or it should be a matter of guidepost determination rather than prescriptions as to hours, methods and technics of teaching.

It is sound administration for any organization in business, government or industry to define what is to be done at the policy making level and to delegate both the authority to do it and the freedom to develop the method and technic to those who are given the responsibility of doing the job.

When this principle is violated and the policy level also determines the details of when, where and how things shall be done, there is likely to develop an inflexible and stationary organization which fails to meet the demands of the changes in our dynamic society which we expect of our public schools.

One of the areas where this problem is becoming serious is in the relationship between legislative and administrative control of the educational pattern.

We could not have universal compulsory education in our state school

system, as Everett C. Preston¹ points out, were it not for the legal fact that the natural rights of a parent to the custody and control of his infant child are subordinate to the power of the state.

This we believe to be a sound and established principle of American democracy. However, this does not mean that we can justify the free use of this power of the state to impose willy-nilly the wishes of special interest groups. It is quite clear that no matter how well meaning they may be, special interests must not be a controlling factor in determining what shall be taught and how much time shall be spent by this captive public school audience in any designated area of the curriculum.

A look at Jesse K. Flanders' study,² which brings us up to 1925, compared with more recent studies pertaining to this issue bringing us up past the middle of the century, and then a glance at some current situations have provided a basis for the discussion in this article.

Mr. Flanders points out that the W.C.T.U. has been most effective in obtaining state legislation that requires schools to teach the evil effects of alcohol and narcotics. He also observes it has not yet been shown that we can teach a child how to think and at the same time control what he shall think.

Other examples of state prescriptions revealed by Mr. Flanders' 1925

¹ Preston, Everett C.: *Principles and Statutory Provisions Relating to Recreational, Medical, and Social Welfare Services of Public Schools*, New York, Teachers College, Columbia University, 1935.

² Flanders, Jesse K.: *Legislative Control of the Elementary Curriculum*, New York, Bureau of Publications, Teachers College, Columbia University, 1925.

study, and still in effect 30 years later, include the following:

1. "A New Jersey and Delaware requirement not only that five verses from the Bible shall be read daily, but this must be done 'at the opening of the school day'" (what and when). Joseph E. Clayton, assistant commissioner of education for New Jersey, reports that that Old Testament Bible reading and the repeating of the Lord's Prayer are still required in the public schools of the state under Code Sections 18:14-77 and 18:14-78. In Delaware, Bible reading is still mandatory—so these laws passed prior to 1925 are still hanging on.

"In Montana teachers must give oral and blackboard instructions using data supplied by the state board of health concerning the causes and prevention of communicable diseases" (what and how). Genevieve Squires, deputy state superintendent, reports that this item is still in the code as Section 75-2303.

2. "In North Dakota the pupils in the lowest three grades are to receive hygiene instruction orally. Above the third grade instruction must be from textbooks put in the pupils' hands." (This is who, what, when, how and where, and it certainly proves the stupidity of lay imposed methods and technics by legislative prescription.) This section, No. 15-3807, of the North Dakota Code of Laws is still a part of the laws of the state—so here is another example to prove the tenacity with which these restrictions, once incorporated into the laws of a state, continue to hang on.

3. In Montana the legislature prescribes who, what, when and how



"We have a captive audience in physical education; everyone must enroll."

when it says, "The duty of preparing a book dealing with fire dangers is placed upon the commissioners of insurance; the book to be conveniently arranged in lessons to be read by the teachers each week."

Jesse P. Doss,³ in his 1951 study of centralizing and decentralizing tendencies in California from 1900 to 1950, found that legislative provisions concerned with courses of study and curriculum policy increased from a mere 13 in 1899 to 95 in 1949. He found the most pronounced increase in the decade between 1939 and 1949. *Obviously, the trend toward state control is on the increase in the state of California.*

The march toward centralization is apparently outdoing the trend toward decentralization. We should examine whether the centralization tendency may be only the state's way of overcoming lethargic local acceptance of new responsibilities by the schools. Rather than assuming that there are actual attempts at domination of the curriculum, we also should examine these centralizing tendencies in the light of local indifference to important educational concepts. School people have much responsibility for keeping up with the times, which they do not consistently assume at the local level. Perhaps we should be glad we have this assistance from the state in seeing that we assume our full educa-

tional responsibilities. Possible areas are special education of handicapped and retarded children, adult education, and redistricting, in which local control has often evaded progress.

What, then, is the state's job and what is the local district's job in education?

The perpetual struggle between centralization and decentralization is continually facing each state system of public education. This struggle occurs in school construction; it occurs in attendance accounting, in financial accounting, and in budgeting, and it especially happens in the area of curriculum when the various elements of control are attempting to determine what to teach, when to teach it, and too often even how much time to devote to each phase of the curriculum.

What we are after, and what we need in most cases after a particular situation is analyzed, is a nicer working balance between centralization and decentralization. A policy criterion for evaluation and adjustment of the decisions in either case needs to be applied, often before the original legislation is passed. Frequently, however, after the flaws come to light, the crystallization process has gone too far. An examination of some current patterns will serve to show specifically that flexibility is not what we are getting in the practical application of state control in various areas of the curriculum.

The current need for adequately equipped manpower resources for different phases of government leaves

little justification for permitting isolated local communities to have complete control of the curriculum. We might soon be witnessing control by various cults, sects, social cliques, economy blocs, ethnic groups, individual large taxpayers, or any other form of provincialism. To allow such groups to impose their particular set of prejudices, objectives or standards upon children of any community is an unthinkable limitation on the horizons of our youth.

MUST AVOID PROVINCIALISM

The schools in their preparation of citizens have the larger responsibility of the state and nation to bear in mind. Provincialism must, in these larger matters, be superseded by the accepted points of view and needs of the state and nation, and even international attitudes must be developed.

Local autonomy must keep its appropriate place. We must not assume that the state is merely a necessary evil which local citizens and schools tolerate. Local school officials are, in fact, merely an extension of the arm of the state in local habitat. But the state should be circumspect with its influence on the local school program. Too often a pressure group is permitted by the state to impose a particular brand of emphasis upon the school curriculum which appears to be sound but in the over-all result is a sort of meddling that results in problems of administration within the school program itself.

In California, a committee composed largely of representatives of one particular type of business (it does have some educators on it) has been permitted by the state board of education to impose a 30 hour requirement in driver education upon the school curriculum for every student.

On the surface this doesn't sound unreasonable, but when one examines the facts he finds that there is already a full period a day of compulsory physical education required by law. This means that a five-period-a-day high school student has to use one-fifth of his school day in physical education, and, if he carries four solid subjects, such as English, mathematics, science and history, the school board has the choice of taking 30 hours or six weeks out of one of these important subject areas. An alternate is to go to a six-period program so that a special course can be developed

³Doss, Jesse P.: *Tendencies Toward Centralization and Decentralization of Control in Educational Administration in California from 1900 to 1950*. Unpublished doctoral dissertation, University of Southern California, 1951.

to include catch-alls. If one presumes, however, that the school was already on a six-period schedule, the student must forego an elective to take the driver training and miscellaneous other things which the committee, supported by the state board of education, has decided upon.

It could be even worse, were the state to look around for 30 hours to eliminate when the 30 hours are added. Then we would be in the middle of a "you can do this but you can't do that" controversy.

The state could have been just as certain of proper attention to both physical education and driver training by requiring that these subjects be included in the curriculum, rather than by saying one period per day for physical education and 30 hours per student for driver training. These are only two cases in one state where minor areas are dominating the whole curriculum. Because the controls are so detailed, the program is difficult to carry out.

HEADACHE TO ADMINISTRATORS

The abuses that have resulted from the daily requirement of one period for physical education are a headache to school administrators. In the first place, we have a captive audience in physical education. Everyone is required to enroll whether he wants to or not, and whether he needs it or not. Furthermore, we are forced to provide physical education facilities large enough to shower and locker and administer the program to one-fifth or one-sixth of the student body each period. This is a tremendous capital outlay, of course, and makes the gymnasium the largest building on the campus. Taxpayers cannot be blamed for eyeing this one. Another problem is the tendency of physical education instructors to take the captive audience for granted, and to emphasize the interscholastic competitive sports, a voluntary program, rather than the program that all of the students are forced into. Even with compulsory physical education, we are still concentrating on making the biggest ones bigger. It is the belief of some California schoolmen that if physical education were an elective or less forced subject, and thus were in competition with other departments for students, it would attempt to provide a better program.

Some administrators question the wisdom of the state's prescribing the

time that students shall be required to study a given subject area. We not only question it on the practical grounds of making the administration of it more difficult but also on the basis of what we now know about how learning takes place. We question it on the basis of how little the actual number of hours devoted to a learning area has to do with the amount of learning that takes place when interest, attitude, time for maturing of the learnings between exposures, and so forth are taken into account. And we question letting individual areas of the curriculum, particularly minor areas of the curriculum, control scheduling.

The latest proposal in California is required instruction in the control of air pollution. This suggestion appeared in the metropolitan press of Los Angeles on Dec. 29, 1954. Maybe it can become another unit in the catch-all course if the trend continues to prescribe time elements. Obviously, it is a new responsibility which the schools must accept, but let's be careful what kind of an educational monster we create with this or any other new responsibility.

The objection is not to the soundness of having these various areas studied. It is rather to the unsoundness of an accumulation of unrelated prescriptions and "musts" in the curriculum. These accumulations over the years certainly should be tempered with at least a little consideration for what the time allotments do to the organization of the whole curriculum. And, when something is added, something should also be removed, and by the schools, we hope.

EXERCISING CONTROL

There are many ways that these controls are exercised. One is by specifying hours in the school day for a certain type of instruction. Another technic for control of the local school program by the state is to build up a special credential for a specific area or function of the school program. Then laws are put through the state legislature requiring that these programs become mandatory. Next, properly credentialed people must be employed to perform the necessary functions. These special credentialed people become a vested interest group that insists that their specialty have more and more emphasis. They receive a lot of backing by college and university professors in these specific fields.

The local school board soon finds itself saddled with a series of special credentialed people who have limited functions they can perform, more or less out of local jurisdiction. There is not only a curriculum control matter here; there is also a supervisory and administrative control problem. Furthermore, there is a financial expansion problem for the local board to meet as each of these special areas develops more and more necessary functions accompanied by special legislation.

AUDITING FUNCTION

Another technic that can be used to control the local board of education's policies is the auditing function. It is a comparatively simple matter in almost any state for a group of influential citizens, or a tax bloc, or a grand jury to decide suddenly that schools aren't keeping proper records of transportation costs, supplies or costs of operation at some point. All the excitement is quite frequently over some item in the budget, or some division of the budget, which represents perhaps as little as 2 per cent of the budget—which in itself defeats the purpose of the people who get excited. Then the accountants are called in. Soon we have a new piece of legislation requiring an annual audit and giving auditors wide powers in recommending procedural controls that affect board policy throughout the school system. And unless care is taken another vested interest group may be turned loose on the schools for the taxpayers to finance.

It may be well for schools to sharpen up their accounting practices, but it is also well to remember that it is of no benefit to the taxpayer to require the kind of accounting staff that a commercial organization needs. A governmental agency whose function is not to make money but to spend it properly and wisely for the purposes and services for which schools exist has other things to do than to load itself down with a double entry bookkeeping system.

Auditors, by training, are likely to want a lot of unnecessary records that tend to make their job of checking up easier each year but also add a staff load of costs onto the local district to keep the fancy records. For example, what difference does it make to the board of education or the people of the community what the annual value of a piece of school playground

land is or the number of square feet of blacktop it has so long as it is providing an area upon which to perform the educational function that is expected of it. To the practical school board the time to worry about its value is when it ceases to be of value to the educational program and it is time to sell it. Then the market value must be established. But why hire someone to keep up the annual value each year for 20 or 30 years on 20 or 30 playgrounds when the real problem is to get more playgrounds for more boys and girls?

What difference does the value of the playground or textbook make, when once it has been purchased, so long as they are there and are being used for the purpose intended?

The state school building aid situation in California is one case in point that is indicative of an entirely impractical philosophy of administration, and also of legislation. While it must be admitted that it has helped many districts that were in poor financial circumstances, it must also be admitted that the local board of education in each case has done as follows:

1. Lost control of its own budget.
2. Lost control of all its current building funds and program.
3. Conformed in many ways (often with difficulty) to standards set by a state bureaucrat in one of the following agencies: (a) state department of education, division of schoolhouse planning, (b) state department of finance, (c) state controller, (d) state division of architecture, (e) the legislative auditor.

The state building program creates difficulties for a unified district because it takes away budget flexibility and requires that elementary and secondary budget keeping be separated. Thus the policy of using money where it is needed goes by the board; expenditures must be separated by levels. This is costly because it encourages one level or the other to expand while the other level is short, but the funds can't be transferred to point of need.

The state is lending its credit. The district has to pay interest for 25 years and principal for 30 years, but the state keeps control, and the district can't do anything about it.

In one district the state came in, examined the operating budget, and took \$100,000 away from the district's operating budget because it needed help on its building program. The fact that the local board had other plans made no difference.

POLICY NOT POLICING

Much of our centralization seems sound, so long as it takes on a policy approach. When centralization forces the local school district to become more or less a policing activity in carrying out the details of an overly prescribed program it is quite likely to be on unsound ground.

The real objective is to release American creative genius—not to tie it down. We must find a way to open the horizons of our governmental agencies at the state level to an understanding of our need for positive, dynamic and stimulating leadership with legislative encouragement rather than legislative chains.

It is quite possible that the social lag that keeps us from 50 to 100 years behind our best thinking is caused in part by our inability to keep our legislative and constitutional authorities up to date and flexible, and to screen out the unsound legislation that is presented annually, as well as to eliminate the poor legislation already in force.

Who Should Plan the Workshop?

ROBERT B. CODY

High School Principal, Sidney, N.Y.

THE big question about preschool workshops these days is not whether they are of value, because their worth has been repeatedly demonstrated, but rather whether they should be planned by the administration, by the outside expert, or basically by the teachers themselves.

In four years of workshops at Sidney, N.Y., the planning has shifted from one person to a committee representing all the participants. These representatives brought to the planning meetings many suggestions that resulted in more fruitful and more enjoyable workshop sessions. Some of the suggestions led to drastic changes in workshop procedures; other suggestions merely refined tested parts of an established program.

Perhaps the most significant change that resulted from group planning was the organization of small discussion groups. Each member of the planning committee acted as a group leader, with about 15 in his group. The small groups discussed phases of the central topic and reported their ideas to the remainder of the group. Contrasted with large formal meetings of 80, the small discussion groups were considered an important improvement.

A minor change suggested by the planning committee was to start the first day of the preschool workshop sessions with a breakfast. Because teachers naturally want to talk to one another about summer experiences, the

breakfast sets an informal, friendly mood for the work ahead.

The first time a committee undertook the planning of the preschool workshop, members spent several meetings deciding upon a central theme that would link each workshop session with the others. Each session then centered on one aspect of the central theme. For example, one workshop devoted to public relations started with a panel discussion by community representatives concerning the public's concept of a good educational program.

As the planning committee gained experience, it began to plan workshops centered upon more specific and concrete problems. The last workshop, for example, was devoted to helping teachers become more uniform and consistent in maintaining standards of discipline through all the grade levels. A schoolwide discipline policy grew out of this workshop, and it serves as a guide to all school personnel.

When the teachers themselves plan the preschool workshops, more is accomplished in a pleasanter atmosphere. Teachers come back early knowing what has to be done because their representatives have planned and discussed the program with them. In this way the teachers can be certain that the time will be devoted to topics that are vital to them. It is a subtle but crucial difference between a teachers' workshop and a workshop for the teachers.



1. The aide helps with children's wraps

Administrators, teachers, parents and pupils like

The Teacher-Aide Plan

Three years of research suggest
methods of increasing the competencies
of the professionally trained teacher

An interview with **CHARLES B. PARK**

Director of Special Studies, Central Michigan College, Mount Pleasant

THE heart of the study is to ascertain the feasibility of using persons having less than professional teaching skills to perform the nonteaching operations."

The "study," now starting its fourth year, is financed by the Fund for the Advancement of Education. It is known as the Cooperative Study for the Better Utilization of Teacher Competencies, with Central Michigan College, and the board of education at Bay City, Mich., as co-sponsors. The quotation is by Eugene B. Elliott, president of Michigan State Normal College and former state superintendent of public instruction in Michigan.

Time studies conducted during the last three years show that the "nonteaching operations" mentioned by Dr. Elliott require, on an average, 26 per cent of the teacher's time while in the classroom.

The directors and advisers for this five-year study are emphatic in their statements that no conclusive observations can be made at this time. Nevertheless, the evidence seems to be that the teacher-aide idea is liked by students, teachers and parents and—according to most of the data accumulated—the plan increases somewhat the effectiveness of the professional teacher in the classroom.

Teachers are especially enthusiastic about the fact that the teacher aide frees the regular teacher for more professional preparation and professional growth. This seems to be especially true for the teacher's time outside of the classroom. Hours that would be spent after school in correcting papers and mechanical preparation of instructional materials can now be devoted to further professional preparation for teaching.

In the next two years of the study, further study will be made of the teacher-aide plan, with at least twice as many districts participating as did in the past year. This means that at

Innovations can be made

WE MAKE PROGRESS in education by questioning, innovating, experimenting, systematizing and evaluating. We fail to make progress when we assume that all of the answers are known. With this attitude I have found my experience on the advisory committee for the Cooperative Study for the Better Utilization of Teacher Competencies instructive, stimulating and at times exciting. The behavior of teachers has been carefully observed and categorized. This is useful work irrespective of what may be the ultimate extent of use of teacher aides on the pattern of the Bay City experiment. It is very clear that the teacher can be assisted in many ways in the performance of nonprofessional functions. The appraisals thus far made indicate that innovations in the use of assistants can be made without damaging children in achievement and that pupil and parent acceptance of the variations will be good.

It would be sheer speculation to answer the question of whether the use of teacher aides will be of long-time significance in meeting teacher shortages. It is unsafe to be a prophet since exogenous factors produce complex and major changes that cannot be predicted. Among the exogenous factors are the unexpectedly large increase in enrollments in teacher educating institutions, the improvement of teacher salaries, the return of teachers in substantial numbers, and the attitudes of professional and certifying groups. All of the factors producing increased numbers are likely to be too little and too late. We need continuous experimentation with new possibilities. The results are likely to be helpful in many directions.

I do not regard my membership on the national advisory committee as representing the advocacy of a formula. I regard myself rather as a sounding board, a resource person, a friendly critic, and an extension of the process of interpretation to other groups.—WILLARD C. OLSON, dean, school of education, University of Michigan, Ann Arbor.

least 20 districts in Michigan, and possibly as many as 30, will be involved in the experimentation. In 10 Michigan school districts during the past school year, 21 teacher aides have been employed, working with one, two and sometimes three teachers. The scope of the study will be broadened, however, to make a similar study of what can be done to improve the effectiveness of the high school teacher.

Two other phases of the study will be explored: (1) The effect of the physical environment upon the learning situation will be studied, as, for example, the size of the room, its lighting, seating and thermal environment. (2) The other phase will deal specifically with the use of teaching aids, and these will not be limited to audio-visual equipment and materials. Field trips and any other way in which the physical and human resources of the community can be utilized will be observed. A coordinator in charge of this part of the study will divide his time between a school in Bay City, Mich., and another school in Gaylord,

CLASSROOM SCENES FROM:

Bay City public schools: Nos. 1, 2, 4, 5, 10, 13, 15, 18, 20, and 22.

Holly area schools: Nos. 7, 8, 9, 11, 12, 14, 16, 23, 25, and 26.

Lake Fenton community school: No. 6.

Midland County, St. Elmo School: Nos. 3 and 17.

Saginaw County, Ricker School: Nos. 19 and 21; Carrollton, No. 24.

2. Helps plan the day

3. Copies on blackboard

4. Shows flash cards



Mich., where experimental studies will be organized.

Skepticism on the part of the teaching profession has produced several questions, frequently reflecting a fear that the teacher-aide plan will jeopardize the professional status of the teacher. These and other pertinent questions were asked Director Charles B. Park and his associates by the editor, and the questions and answers follow:

What is the purpose of the study?

The purpose of the study is to discover how the competencies of the professionally trained teacher can best be utilized in our public schools. Those who made this study possible faced the undeniable fact that the shortage of teachers and of classrooms will not be solved in a year, or in several years. There will continue to be large enrollments and heavy teacher loads in the individual classrooms. These situations already have lowered the quality of teaching in many schools.

Without preconceived notions, and with no directives from the Fund for the Advancement of Education as to what the study shall seek to prove, the researchers are making extensive observations of current practices in staffing an elementary school. They are examining methods and materials of instruction to discover whether the abilities of the teacher are being used to full advantage in the classroom.

Who are sponsors, participants?

Made possible by an original grant of \$280,000 from the Fund for the Advancement of Education (established by the Ford Foundation), the five-year study is sponsored jointly by Central Michigan College of Education, Mount Pleasant, and the public schools of Bay City, Mich. Other institutions of higher learning in Michigan are cooperating, and other public school systems are participating. Although actually the study is not limited to Michigan, at present the experimentation has not gone beyond the boundary lines of the state.

During the first two years, the study was concerned only with kindergarten through Grade 8. In its fourth year, it will extend the scope of its exploration into the secondary school area, financed by a one-year grant of \$41,500 from the Fund for the Advancement of Education.

Who conducts the project?

Education, business, industry and labor are represented on the national advisory committee of 27 members. This group reviews and evaluates the research findings, visits the experimental schools, and gives general direction to the study.

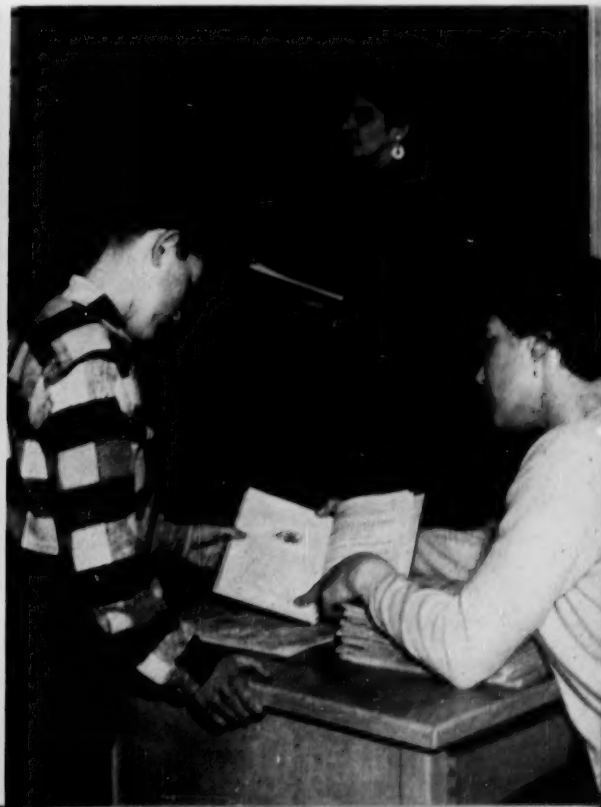
Representatives of national groups or interests serving as advisers include the president of the American Council on Education; a staff member from

the U.S. Office of Education; the presidents of national teacher groups, including the N.E.A. Department of Classroom Teachers, and the executive secretary of the National Commission on Teacher Education and Certification; the general director of the American Association of University Women; a nationally known architect; a consultant for the American Association of Colleges for Teacher Education; the teacher-recruitment chairman of Delta Kappa Gamma; the president of the American Federation of Teachers, and some well known national lay leaders in education, including the president of the National Citizens Commission for the Public Schools, an educational consultant for International Business Machines Corporation, and the secretary of the Hillyard Chemical Co.

Among the Michigan representatives on the advisory committee are the presidents and deans of schools of education or other faculty members of several institutions of higher learning; the state superintendent of public instruction; the executive secretary of the state education association, and a member of the state board of education.

The board of control, which has complete freedom in administering the study, consists of the director of the study, Charles B. Park; the president of Central Michigan College,

5. Corrects workbooks 6. Gives individual help 7. Helps absentees make up work



Teacher will not be replaced

OBJECTIVITY has been a key word in the Cooperative Study for the Better Utilization of Teacher Competencies. Every effort has been made to gather, as far as possible, all the facts about the teaching process. The heart of the study is to ascertain the feasibility of using persons having less than professional teaching skills to perform the nonteaching operations. Those operations requiring professional skills would be the responsibility of fully qualified teachers.

One of the early endeavors of the study was to make a detailed time analysis of a teacher's work day. These data were analyzed to determine which activities were professional in character and which were nonprofessional. At present, a time study of a full week is being conducted in order to study each activity in relationship to the entire program of the week.

It is not possible, however, to analyze all of the schoolroom functions by objective means. The opinions of teachers, parents and pupils are eagerly sought. The study has many visitors, including members of the advisory committee. What each person reports becomes additional information upon which to make final interpretations.

Perhaps more important than the current observations, in making an objective appraisal of the study, is the plan to obtain outside research specialists during the last phase of the program.

The tremendous need for teachers of quality throughout the entire educational system from kindergarten through college is staggering. There is every indication that the situation will become worse. There appears to be a partial remedy by utilizing the services of highly skilled and professional teachers to the greatest advantage by the employment of less skilled teacher aides as helpers, provided the quality of education may be maintained for the children.

Achievement tests are being given to determine possible differences between children in the experimental program and those taught in control groups which do not have teacher aides. The control groups are as closely matched as possible with those in the experimental program.

The teaching profession should be constructively critical throughout the study period. Judgment should be withheld until the final pronouncements are made by those connected with the study. The careful research methods which have been employed, together with the projected research which will be used in the final year of the study, should relieve any anxiety that the professional teacher will be replaced or exploited.—EUGENE B. ELLIOTT, *president, Michigan State Normal College, Ypsilanti.*

Charles L. Anspach, and the director of field services for C.M.C., Woodward C. Smith.

How many hours does a teacher work each week?

During the first year of the study, the staff concentrated on a time study of a teacher's daily program. Observed were 137 elementary teachers in the Bay City public schools. Twenty-one definable activities were classified.

Observers tallied the distribution of the teacher's time in a schedule that called for six hours daily in the school in a five-day work week. To these

school hours were added all out-of-school activities related to the teaching job. The average was one hour and 40 minutes each day (or 11 hours and 40 minutes a week). Thus, the teacher had an actual work week of 41 hours and 41 minutes, a little more than the five-day, eight-hour-a-day week load for office workers.

How much time for recitations and directed study?

Although conducting recitations would naturally be expected to consume the greatest amount of time, the range in the amount of time given to

recitations varied from 20 per cent to 40 per cent of the day, or from 72 minutes to 174 minutes.

Directed study, which ranked second in total time consumed, had a closer range—of from 14 per cent to 23 per cent of the day, or from 50 minutes to 84 minutes.

Teachers who complain that they "don't have time" to work on report cards during the class day can quote this study, as it was found that the time spent in the classroom by the teacher on report cards was so small that it did not even warrant being recorded.

What happens to the remainder of the teacher's time?

From 21 per cent to 69 per cent of the total school day, or from 75 minutes to 249 minutes, is spent in these activities:

Writing on the blackboard, written lessons, desk-to-desk, correcting papers, pupil control, opening exercises, interruptions, taking roll, making reports, dictation, reading to the group, transition, supervision, housekeeping.

Two time studies made this year, in Grades 3 and 5, indicate the teacher with an aide spends, on an average, 26 per cent less time on these activities.

How much clerical work?

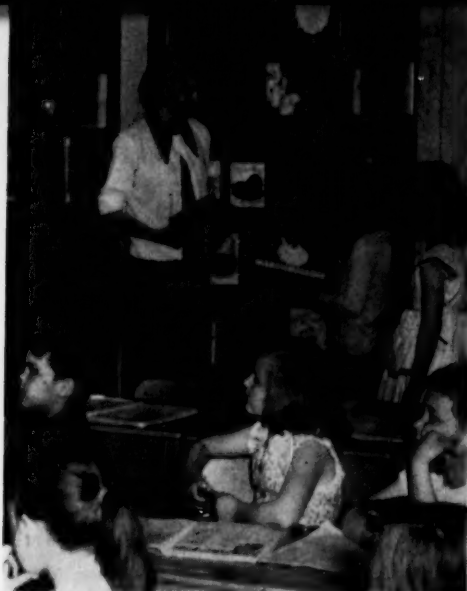
One of the questions for which data were sought was: How much of the teacher's time is spent doing things that are of a clerical nature only and that require no professional training? The range was found to be from 2 per cent (or 8 minutes) for some teachers to 12 per cent of the day (or 44 minutes) for others. The activities were: writing on the board, making out reports, correcting papers, taking roll.

Most of the clerical duties were done after school hours. While the average for these clerical or miscellaneous duties was 5 hours 34 minutes, the range was from 4 hours 54 minutes to 7 hours 54 minutes in one week.

One of the characteristics of the daily routine of the teacher was that, progressively, the number of activities in which a teacher participated became fewer as the grade level became higher.

Was pupil control observed?

Problems of pupil control increased as the child became tired. Time given to pupil control in the afternoon



8. Distributes materials



9. Checks class attendance



11. Stores supplies

10. Collects funds



12. Handles class interruptions



13. Plays piano

14. Phones reports 15. Types records

16. Gives health check



No hasty defense should interfere

WE MUST WELCOME thoughtful and well directed experiments to meet the present tragic shortage of teachers at all levels—the issues are not new. They differ only in degree. We have never had enough good teaching.

The worst enemy of our schools could be that person who said no improvement in our processes can be made. In fact, many experiments are in progress over the nation. All deserve careful scrutiny. Here, as elsewhere in our culture, marked changes will occur. No hasty defense of existing practice arising out of a narrowly conceived self-interest, personal, institutional or "professional," should interfere with a critical examination of the Cooperative Study of the Better Utilization of Teacher Competencies on its merits.

The study was set up before consultants were assembled. From all that I can gather, the responsible persons are trying sincerely to conduct the experiment objectively. Whatever evidence that it is possible to gather will be laid out for all to judge. The evidence on which to draw conclusions is not in. On some aspects of this venture, aspects which are most critical, it will not be possible to assemble objective evidence. Before any conclusions are drawn, we shall have to know much more than we can carry into a building program that will determine the kind of experience children will have for the next 50 years.

Our sights should be set for a better experience than has been possible in the past for children at all levels. Not cheaper education, not caretaker experience, not conditioning by mass suggestion at any level, but steady insistence that every child is an individual, precious for his own sake, valuable for what he can give others.

I am hopeful that before the cooperative experiment is concluded, and by that I mean submitted to the widest discussion, we shall have new understanding of what education really is and have more eagerness to achieve it at whatever cost in change or money.—CHARLES W. HUNT, consultant, American Association of Colleges for Teacher Education, Oneonta, N. Y.

was twice as much as during the morning sessions. And most of the problems of control were in the late morning or late afternoon of the school day.

How valuable is a teacher aide?

The focal point of the second year of the study was an attempt to find ways of helping teachers who have large classroom enrollments.

The \$64 question was: If a good teacher were to have an assistant or an aide who did not have professional training but could do many things to save the teacher's time, would the instructional program be improved? Would the teacher, with the help of an aide, be able to do more effective teaching with a large group? And would a teacher-aide plan add to the per pupil cost of the instructional program?

It seemed advisable to make comparisons between three kinds of situations: (1) one in which the teacher had a large enrollment, but *no* teacher aide; (2) a comparable situation in which the class was as large, but the teacher had a *helper*, and (3) a situation in which the enrollment was considerably *smaller*, with the class in the charge of a professionally trained teacher only, without a helper.

Classroom enrollments in Bay City vary considerably, so it was possible to find elementary classrooms in various buildings, old and new, kindergarten through seventh grade, where



the number in the class ranged from 45 to 52 pupils.

How were the aides selected?

From a list of 64 names recommended by P.T.A. presidents, school principals, and other staff members and teachers, eight aides finally were selected by the board of control of the study and the administration of the Bay City schools. These eight ranged in age from 19 years to 42. Four were married; one had a high school diploma only; others had some college education; one had a degree.

How much training and pay?

They were paid the prevailing wage for unskilled workers in Bay City and received contracts from the Bay City board of education at \$45 per week for a full school year.

Inservice training for these aides included a day of orientation just before school started in the fall, and each week a two hour seminar on school time dealing with classroom methods, elementary psychology, and child growth and development. Aides are taught to operate audio-visual equipment and duplicating machines in their weekly seminars.

Additional guidance was provided by Bay City's supervisory personnel and by a staff member from Central Michigan College. They conferred with the cooperating teacher, with the teacher aide, or with the two of them at the same time.

How was achievement measured?

Obviously, many of the results of this experimentation could not be measured insofar as character development, guidance, and other values developed from teacher-pupil relationships. But it was possible to measure achievement in subject matter. For this purpose, 14 control rooms were selected, two for each grade for Grades 1 through 7, kindergarten being omitted.

One set of control rooms had a teacher with *no* aide, but with a large enrollment of from 40 to 50 pupils. The other set of control rooms had a lower pupil-teacher ratio of approximately 30 to 1. Again, the teacher had *no* helper. Insofar as possible, other situations were made comparable, such as the mental ability of the pupils in the various groups.

The subject matter testing covered a seven-month growth period, with tests conducted in the fall and in the spring. Results of this testing added up *very favorably for the teacher-aide plan*, but the administrators of the study point out quickly and positively that no final conclusions can be based on so few situations.

In terms of subject matter achievement, the tests showed that in those rooms where the teacher had a helper, the average gain was 7.3 months as compared with a gain of 6.4 months for children in the 14 control rooms.

Five of the seven experimental rooms with 45 pupils or more, in

charge of a teacher and an aide, showed greater achievement gains than the seven rooms with a small enrollment, of from 30 to 33 pupils, with one teacher only. In fact, the median gain was quite significant, an average of 7.3 months compared with 5.9 for the members of the smaller classroom groups.

A comparison of achievement in subject matter for the grades having the very large enrollments (40 to 50 pupils) favored the experimental rooms having the teacher aide by a median of 7.3 months compared with 6.9 months.

What did opinion surveys reveal?

Opinions expressed by teachers, parents and pupils indicated that the teacher-aide plan brought even greater values than can be measured by subject matter tests. Opinion surveys substantiated the conclusion that the cooperating teachers in the experimental rooms, being freed from many of the time consuming, nonprofessional activities that were performed by their aides, were able to give more time to individual pupils. They were able to shift instructional methods to involve more pupil participation and less regimentation and, in short, to do a much better job of teaching. Opinion surveys concerning this were conducted for six groups: (1) pupils in the experimental rooms, (2) their parents, (3) the teacher aides, (4) the cooperating teachers, (5) prin-

A pioneering effort

THE study of better utilization of teacher competencies under way at Central Michigan College deserves the attention of all educators. The fact that we shall have a shortage of qualified teachers for the foreseeable future means that we must use the available supply more efficiently, or use unqualified teachers to man classrooms.

The analysis of teacher duties made at the outset of the study, which collected evidence on the amount of time the typical teacher devotes to subprofessional activities, pointed out dramatically the luxurious consumption of the time of the qualified teacher. It indicated that a possible conservation of the scarce element might be found in assigning subprofessional duties to an aide.

The experiment that followed in the selection, assignment and use of teacher aides is difficult to appraise. It is evident that the aides have released professional time for important educational service. Further experimentation under other conditions must be conducted before it is possible to evaluate the teacher aide conclusively.

The Central Michigan study has been a pioneering effort to deal creatively with a problem that too many members of the profession avoid. Educational experts, teachers and administrators must experiment boldly with various ways of utilizing effectively the professional competencies of teachers if we are to solve one of the most critical problems facing American education.—WILLIAM H. CONLEY, educational assistant to the president, Marquette University, Milwaukee.

cipals of the buildings, and (6) other teachers and staff members who visited the rooms.

Did teachers like the aide plan?

All eight cooperating teachers expressed personal appreciation for the help of an aide, particularly because it released them from pressures and gave them more freedom for after-school activities. Nearly all of them, too, said they enjoyed sharing with the aide the fun of teaching.

The teachers also reported that the assistant often facilitated instruction by being able to play the piano, do typing, or take the initiative in arts and crafts activities.

Primarily, however, the greatest advantage of the plan was in the additional time released to the teacher for actual teaching and planning.

Said a *kindergarten* teacher: "I feel I have done a better job of teaching because of being able to spend more time in planning *with* and planning *for* the children. There were fewer pressures and tensions because the aide relieved me of them whenever possible. I was more alert mentally because my mind was on teaching

21. Assists with arts and crafts (aide seated at left)





22. Supervises use of ceramics equipment (aide at the kiln)

and not on the many odd jobs that usually surround a teacher."

Similar appreciation was expressed by a *first grade* teacher, who said: "First grade children are in constant need of attention and guidance. They require frequent change of activity, and this is possible to achieve with the help of an aide."

A *second grade* teacher observed: "I am much happier this year over the success the children have had in their reading. I never had the time before to give them the extra help some of them needed. We have covered more work, and it has been done well."

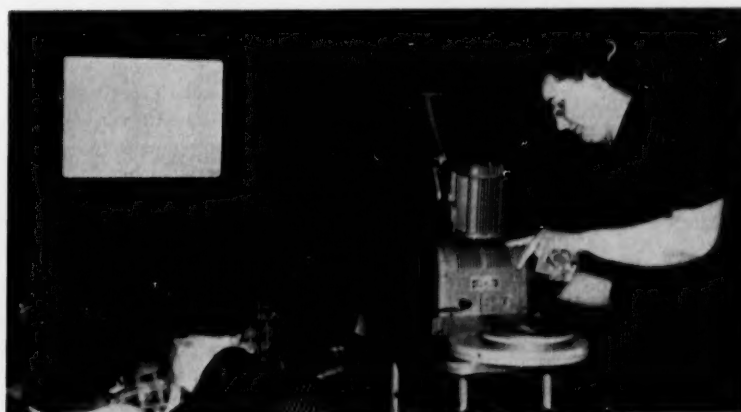
Appreciation for the extra time she gained during the lunch hour was expressed by a *third grade* teacher: "In previous years it seemed necessary for me to spend a good share of the noon hour setting up a movie or strip film, writing on the board, correcting workbooks, and doing the housecleaning that couldn't be done by the children. Now the aide does these jobs while I carry on with the class. I believe that I'm more ready to face a group of children in the afternoon."

A *fourth grade* teacher said: "I like the freedom I now have to walk out of the room occasionally. I have enjoyed the year and the experience.

There have been needs for adjustments, but these occur in entering any new relationship and I consider it good practice in flexibility and adaptability."

Professional satisfactions were expressed by a *fifth grade* teacher: "It is interesting and pleasant to share planning procedures and compare results with an understanding aide. It is gratifying to know that certain children, who need individual help, do get as much additional assistance as can be afforded by the program. The aide gives valuable help in developing resourcefulness and initiative in the children. The additional guid-

23. Runs movie projector



ance in study habits enables the children to work and learn together more cooperatively."

A *sixth grade* teacher testified, in part: "This has been one of the most satisfying and happy years in my experience. In handicraft and committee work, the results were far better than I could have hoped for alone. Often the unit activity was the sole responsibility of the aide, who worked in a supervisory capacity with the pupil committee."

What did the aides and parents say?

And what did the teacher aides think about it? Perhaps the most

Examine every possible solution

CERTAINLY, in the light of the unparalleled teacher and classroom shortages that are ahead for the children of this country, every possible solution must be examined and evaluated. It has seemed to me that this particular experiment, through the use of teacher aides, gave to the pupils both individual and group attention and relieved good teachers of time consuming routine details so that they could engage in uninterrupted teaching. We found well chosen aides interested in their work and in the children. Several of them, we learned, were already considering teacher training.

If each carefully conducted study and experiment can contribute one tested solution, the next decade may see fewer hit-and-miss, untested, desperate emergency measures.—HELEN D. BRAGDON, general director, American Association of University Women, Washington, D.C.



24. Supervises traffic

convincing testimony is the fact that every one of them wanted to continue as a teacher aide or take up training to become a teacher. All of them enjoyed the rewarding experience of working with children.

To discover what parents of the pupils in these cooperative rooms thought of the teacher-aide plan, personal interviews were conducted with the parents of every fifth child on the classroom rolls.

The survey obtained a 100 per cent response from parents in favor of the program. They expressed the hope that their children could be in a classroom with an aide next year. At the start of the program, some 9 per cent of the parents were indifferent or opposed to the idea. Of the parents interviewed at the end of the school year, 83 per cent believed that their children had learned more under the teacher-aide plan than in the one-teacher arrangement, even if the class size were larger.

Did children like the aide plan?

Fifty pupils in Grade 6 were asked to express their opinions, without identifying themselves. Forty-seven said they liked the idea of a teacher and an aide in one room. Two were indifferent, and one disliked the plan.

Most pupils said that the work seemed easier under this method, and all but one said they would like to be in a room again with a teacher

and aide. Eight, however, expressed the opinion that they might have learned more in a smaller class; the other 42 said No to this question.

What next?

The study is continuing with the present teacher-aide experimentation, again placing aides with teachers having large class enrollments. One building in Bay City is to be set up for special experimentation with instructional materials and aides.

Since so many of the aides expressed an interest in becoming teachers, a "home base" training program for degree and nondegree persons who are interested in working toward a teaching certificate may be established in Bay City as extension work from Central Michigan College. It is believed that there are enough individuals in Bay City (population: 53,000) who would be interested in teaching if the training could be brought to them conveniently and in an appealing manner.

Meantime, similar experimentation has been set up in other schools in Michigan. Working with the state department of public instruction and its committee on instructional materials, those who are in charge of the study are planning to establish two centers to demonstrate the best use of instructional materials and aides. These centers will not only evaluate new materials but will also set up an in-

service training program to show teachers how to use such materials effectively.

Will the study eventually concern itself with physical conditions, such as the size of classroom, its equipment, its lighting and thermal environment, as these affect the efficiency of the cooperating teacher and the teacher-aide team in handling large class enrollments?

The new Dolsen kindergarten-Grade 5 school in Bay City was designed with the teacher-aide program in mind. This school embodies a number of new ideas in classroom design that will be observed as to their effect on pupil behavior and teacher effectiveness. Particularly of interest will be experimentation in some schools in Bay City and other communities where corridors are embodied in the classroom, thus providing work space that can be effectively used for committees and other activities supervised by a teacher aide.

What is the immediate advantage of the teacher aide?

The findings seem to indicate that more effective learning does take place, even in a larger classroom, if the teacher has the assistance of an aide. But a practical and immediate advantage is the possibility of providing more effective teaching in schools that are now crowded and cannot



25. Supervises school lunch period



26. Supervises recess period outdoors

accommodate pupil enrollment on a 30 pupils per room basis.

Isn't there a danger of clash in personality between the teacher and her aide?

Not if careful selection and assignment are made at the beginning. Both teachers and aides are told at the outset that changes can be made in assignments if conflicts should develop. No situations have developed where this became advisable.

Will aides become teachers?

One of the unexpected outcomes of the teacher-aide program has been its demonstrated potentiality as a means of recruiting teachers. Three of last year's teacher aides are now enrolled in teacher education colleges, and another two hope to enroll soon. All of the other aides are continuing in the same rôle during the second year in the Bay City program.

Will it be possible to obtain aides if such a program is started on a large scale?

The response of having eight times as many candidates as needed for the first year in Bay City has been duplicated by the response in other communities as experimental programs are being set up. Evidence seems to be that there is a reservoir of people, most of them with some college education, many of them married wom-

en, who have no families or have reared their families, who would like to be a part of the school program.

Can schools pay enough to interest teacher aides?

The experience in Bay City was surprising in that only one of the original 64 candidates asked about pay during the interviews. Experience in other communities has been the same. In one school system aides are giving their services without pay. In several other communities now cooperating with the study the prevailing pay for unskilled work sets the salary of the aides.

Is this a scheme to save money?

Money-saving is not a factor in the minds of those who are planning and directing the study. Assuming that the top wage for unskilled persons will approximate half, or less than half, the salary paid a teacher, the salary costs for a classroom having a teacher, an aide, and 45 pupils would be about the same as the salary cost for one room with one teacher and 30 pupils.

Doesn't this program constitute a threat to the professional status of the teacher?

It may be difficult to draw a sharp line between an activity that is professional and one that is not professional in the process of conducting

a classroom. But it is the intent of the study that there shall be no infringement upon the professional responsibilities of the certified teacher. In fact, when a teacher of an experimental room is absent, regular teacher substitutes are engaged and the aide is not allowed to take charge of the class.

The director of the study maintains that in no instance were aides given responsibility even for handling minor phases of instruction without direct supervision from the teacher. In some instances the aides who possessed special talents were used as resource persons in supplementing the instructional program, for example, in some of the craft work and in music.

Is this plan being tried elsewhere?

The teacher-aide plan is not limited to Michigan. Aides are being used in the Turner Elementary School in Washington, D.C., in a country day school in Arlington, Va., and in Salinas, Calif. A summer school experimental program in the use of teacher aides will be carried on this year (1955) in Moline, Ill., under the joint sponsorship of the Rock Island and Moline public schools and Augustana College. Central Michigan College is also cooperating with school systems in New York State and Georgia where interest in the teacher-aide plan has developed. More schools in Michigan will affiliate with the study during the coming school year.

50th

ANNIVERSARY

of the audio-visual
department in the St.
Louis public schools



It Started With Lantern Slides

ELIZABETH GOLTERMAN

Director, Division of Audio-Visual Education, St. Louis Public Schools

GRACE PARLE

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BACK in the days when "Meet Me in St. Louie, Louie" was the latest hit, the St. Louis Board of Education took a step which made history. The Louisiana Purchase Exposition, more popularly known as the World's Fair, was in progress, and all the world had on exhibition its finest products, both natural and manufactured. The children of St. Louis learned a great deal from these exhibits, and Supt. Louis Soldan and Assistant Supt. Carl G. Rathmann of the St. Louis public schools were quick to realize the possibilities of a new educational tool.

About three years before the fair began, the board had purchased a collection of lantern slides. These had been kept in the superintendent's office and borrowed by the schools in turn. Great interest and enthusiasm had been aroused in both teachers and pupils by the use of the lantern slides, and the board considered the money spent on them a profitable investment in education.

In the preface to the catalog of the slides, Dr. Soldan gave reasons for their use which are true for the use of all visual aids to this day. He said: "The lantern slide pictures presented on the screen are to give greater reality to the lessons of the book by appealing

to the eye, to imagination and thought. They help to make the study of geography, for instance, a study of facts and actual conditions rather than of the words of the textbook. Pictures assist the memory and judgment alike and convey to the child a clearer and more comprehensive impression of reality than can be done by verbal description alone."

He also outlined in the same preface a method for their use from which today's authorities have not greatly departed. "A brief recitation or explanation should accompany each slide shown on the screen. This explanation should be given by the children themselves, as far as it is in any way feasible; it should be very brief, not more than could be written in three or four lines. A fuller explanation should be deferred. The lantern slide should, under no circumstances, be exceeded.

"Where it seems advisable for a full understanding of the picture on the screen the teacher of the room or the principal may add a very brief word of further explanation. It is suggested that such questions be asked by the teacher at all points of the lesson as will invite the attention of the children to close observation of the picture before them. It would be a total de-

parture from the intention and purpose of these lessons if they were given in the form of lectures or lengthy explanations.

"Each lantern slide lesson should be a series of very brief recitations, and the children should be actively engaged in speaking and answering questions while the pictures are shown. They should not be merely passive spectators. The various topics should be assigned beforehand, and a brief explanation, not exceeding 30 words, prepared by each child to whom a topic is assigned. Each recitation should be strictly in reference to the picture on the screen, and not be a rambling talk on some subject which is but indirectly connected with the picture."

With this insight and philosophy it is not surprising that Dr. Soldan and Mr. Rathmann had the vision to establish a circulating educational museum. Such a museum, they thought, should contain "illustrative material such as models, specimens, maps, charts and pictures for the teaching of geography and science, scientific apparatus and the latest books on the science of education." They proposed to purchase some of the material from the fair, house it in some central place,

and carry it around from school to school to help stimulate interest in and lend reality to children's work in school. The board agreed to these proposals and on Sept. 13, 1904, appropriated \$1000 for the purpose.

By Dec. 18, 1904, the purchases had been made. They included "models of flowers, mounted animals, charts, maps, pieces of apparatus to be used in the teaching of science," and numerous small articles, some of them art objects to be used in the teaching of drawing. In addition, some of the visiting countries made donations, often complete exhibits, to the new undertaking.

On April 11, 1905, the Pedagogical Museum, as it was called for a few years, was opened for inspection. The first of its seven abodes was a room at Wyman school, though it had been intended from the first to locate the museum in the new Teachers College at 1517 South Theresa. According to the board proceedings at the time, "the entire French exhibit of the work of the manual training schools, a collection of over 150 birds of the Chinese Empire, and some very important parts of the German educational exhibit" were on display.

However, it was not until June 28, 1905, that a "custodian" of the Pedagogical Museum was appointed. Amelia Meissner, a teacher at Madison Elementary School in St. Louis, was chosen for the post because of her outstanding work in taking and arranging pictures for the board of education's prize winning photographic exhibit at the fair. Miss Meissner was a spirited, handsome young woman with a natural flair for display, an unshakable belief in the value of visual aids to education, and an indomitable will. For nearly 40 years Miss Meissner directed the museum, the first of its kind in the nation.

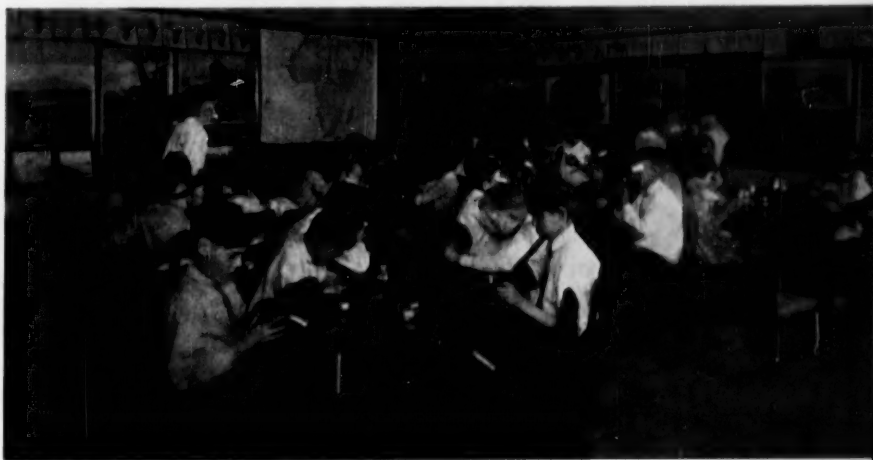
When Mr. Rathmann, in the summer of 1905, took a trip to study the conduct of museums in other large cities, the nation as a whole became aware of the new educational venture. As a token of their good will and interest, the Smithsonian Institution, the Field Museum in Chicago, and the Philadelphia Commercial Museum donated 10 boxes of materials which included, among other things, rocks and minerals, fossils and Indian artifacts. Educators from all over the nation visited the museum. Nevertheless, according to the proceedings of the board of education, as late as 1913 St. Louis' Educational Museum was still the

"only institution of its kind in the world."

Although it had its ups and downs, generally speaking the Pedagogical Museum (called the Educational Museum after 1908) enjoyed a steady

growth. When Miss Meissner took office, she had an assistant, a horse and wagon and a driver, and a budget of \$3000. But almost immediately museum services to teachers and pupils

(Continued on Page 74)



ABOVE: In 1924 youngsters studied Africa with the aid of illustrative materials from the museum and school maps and charts. BELOW: A teachers college extension class studied electrophorus in a room near the museum.



In 1906 these class members studied rocks and stratification with the aid of the museum and then went outdoors to continue their investigations.



WHEN parents and school people talk about educational needs, the question of enrichment is high on the list. In 1949 and since then, I have sat down with thousands of parents and asked them the question: "What kind of education do you want for your children?" I have learned that they want many things. Next to smaller classes and new buildings, they want a richer curriculum and better provisions for the leisure time of their children. Parents want their children to do more than learn the three R's, listen to the radio, look at TV.

The people who were especially interested in orchestras for elementary schools showed so much alertness that the local superintendent and his principals have developed a program which now leads in this North Bronx area the entire city in orchestra development. In the course of this action research, some of the following questions were answered; others are still under study:

Why does every small school system around New York City furnish

grade school children with opportunities to participate in orchestras, while New York City doesn't?

What happens to the rhythmic brilliance of kindergarten and first-year children when they go to the upper grades?

Will modern children accept the drudgery of instrumental music work?

When is the best time for schools to begin instrumental music programs?

Do children who work in school orchestras lose ground in reading, writing and arithmetic?

DEVELOP MUSICAL WEALTH

Up until recently, the general practice in New York City has been to encourage children to begin musical instruments in their high school years. While the superb "All City High School Orchestra" of selected children has resulted from this, one wonders how deeply the potential musical wealth of New York City has been developed in this way. Children in the fourth and fifth grade classes of

our elementary schools are at the right age to begin instrumental music work with regular orchestra instruments. Some of the simpler instruments like tonettes can be successfully taught in the second and third grades.

Five years ago there was not a single grade school orchestra in the North Bronx area. Today in our two school communities called Bronx Park and Bronxwood there are 30 elementary school orchestras. This means that almost 100 per cent of the elementary schools in the North Bronx area have orchestras, while in the rest of New York City only 10 per cent of the elementary schools have orchestras in their first six grades.

In the elementary schools in North Bronx, 1600 children are now involved in orchestral and instrumental programs. Almost 1400 children are members of glee club and choral groups.

This five-year achievement in music indicates two things: (1) parents and school people need to get together to talk about educational needs, and (2)

Elementary School Orchestras

JOSEPH O. LORETAN

Assistant Superintendent of Schools
Districts 23 and 24, New York City

Grade school orchestras have been most successful in the Bronx Park area of New York City. Classroom teachers teach youngsters to play instruments and serve as orchestra conductors.



in such a large city it may be necessary to limit the size of the school area in order to discover and use supervisory and teacher talent.

ROAD TO SUCCESS

A principal who wishes to start an orchestra must ask himself, "What children belong in the school orchestra?" Ideally, any child should be allowed to take part if he wishes to. Practically, orchestra members are selected in two main ways.

In one approach, children are asked if they are interested. Most of these children are taking private lessons. This approach does not net many children, nor is it a really good program.

A better approach is for selected teachers to conduct aptitude tests in the third or fourth grade to find out which children have potential talent. Once such aptitude has been ascertained, parents should be called in to discuss this aspect of their child's personality. Children under consideration are advised to take special

interest in music. Classes of such children in the fourth, fifth or sixth grades are planned for the following year.

Instrumental music lessons cannot be thrust upon a child. The school advises him and his parents that he has a potential ability which he has a responsibility for developing. The child doesn't have to do this; the opportunity is pointed out to him. He is reminded that high school and college years are often packed with unforeseen pressures and that now is the time to act.

Nor are aptitude tests infallible. Parents are advised not to purchase instruments immediately. Initially the school lends the instrument or advises parents where they can rent an instrument for several months. Once their children have shown interest, hundreds of parents have made financial sacrifices to supply instruments and to furnish private lessons.

Group approval is a valuable social incentive in getting children to remain faithful to their music lessons,

particularly until they are over the awkward beginning phases of the work. A device for making these music lessons interesting is for the teacher to work with a whole class. Another is to begin with simple melodies, after a few lessons. When used initially, the old-fashioned monotonous drill on scales is destructive of interest. In the old days when it was the only method, probably many potential composers and musicians were driven away from music by such boring drills.

The pleasure that children get from group playing of simple melodies is immense. Only the enthusiasm of barber-shop harmonizers can equal it. The teacher who can exploit this interest wins over her class. Once this is done, the advance to more complicated instruments is easy.

Not only are the loneliness and expense of individual instruction overcome through group lessons given at the school, but groups of children meet in one another's homes. Younger children catch the spirit from older



ones. Later teen-age swing bands began to flourish.

Teachers talented in music are given the classes of selected music pupils for all the subjects of the curriculum. Music can act as an integrating base. It is interesting to learn that more girls than boys are interested in string instruments, and that gifted children can be guided into playing string instruments more readily than can the nongifted. Nongifted children, however, are just as eager and as able to learn appropriate instruments; they prefer wind, brass and percussion instruments to the violin and 'cello. Getting the right child at work on the most satisfying instrument is good guidance and good orchestration.

During the five-hour school day, half an hour can be set aside each day for teaching pupils the orchestral instrument they like. In larger schools a whole class may be working with string instruments while another whole class works with winds or brasses. In smaller schools more than one instrument group is needed. This is a more difficult operation. In the last year of our music project, a roving "helping teacher," who is a specialist in instrumental work, has been found indispensable for the smaller schools.

The enthusiasm developed as whole classes work on instruments is astounding. In a year, if the instruction has been regular and if children have practiced at home, the orchestra may be surprisingly good.

In our school system certified instructors who, for a small fee, will work in schools after school hours, can be obtained from the central music department. They can help a lot.

START IN SMALL WAY

In the huge and complex school system that has grown up with the big cities, it is often unwise to begin a new project on a citywide basis. There is always the matter of money. Often desirable programs are delayed just because the initial capital outlay appears to be great. Especially in an area like music, often classified as a frill, there is a great tendency to be thrifty. Compared to school systems generally even a single field superintendent's territory is large.

An important reason for the success of the music program in the North Bronx is that it started in a small way. It was begun in two schools where the chances for success were good because the principal was

sympathetic and ingenious and because the teachers were talented and devoted to children. Too, there were eager children and alert parents. The success of the first orchestra recitals by little children in these schools helped promote the program in others.

An even more significant reason for success in a small area is that the approach can be more realistic. In determining the wisdom of teaching grade school children instrumental music, the parents, supervisor and teachers all participated. The problem became personal, local, measurable. Teachers who normally felt lost in the immensity and anonymity of the big city found their ideas and talents appreciated. Their greatest reward was the admiration and respect of the children.

Parents encouraged the growth of this activity by their sincere appreciation of the work of teachers and supervisors. This appreciation encouraged the school staffs to exert themselves. The admiration and practical support of their colleagues were also important.

TEACHERS COME FORTH

The evidence of interest and ability on the part of the children led an ever increasing number of elementary school teachers to come forth.

To perfect themselves in elementary orchestra techniques, they took special courses at universities as well as those conducted by the New York City Music Department. They studied new instruments and new ways of integrating music activities with the regular curriculum. It was found that English, mathematics, social studies, and dramatics courses could be easily related to an understanding of musical composition.

One of the most heartwarming scenes I ever witnessed was the first lessons in violin and clarinet playing by elementary school teachers whose instrument up to that time had been the piano. In the last five years at least 35 of our teachers have added to their own growth and to the educational wealth of the district by learning the principles of orchestration, how to conduct an orchestra, and how to play new instruments.

One of the invaluable achievements in this whole endeavor has been finding these grade school teachers. The fact that they are primarily interested in children rather than in perfectionism in instrumental work makes them ideal beginning teachers for this skill.

Getting many children into the act with a fair degree of competence rather than concentrating on a few talented ones is an essential aspect of work in the grades.

IMAGINATIVE SCHOOL HEADS

The inventiveness of the heads of schools has been a major ingredient in the success of this program. Elementary schools are so organized that it is extremely difficult to utilize talented teachers of any kind for the benefit of the whole school. There are no teachers not tied to a class. Only by most ingenious kind of programming have principals been able to overcome some of the rigidity found in the administrative structure of the elementary school.

Principals need more leeway in this sphere. More could be accomplished with less effort if the principal had power to organize his school to fit the school program to community needs. More persons not specifically assigned to classes or schools should be given to each field superintendent for reallocation to schools.

Great specialists are not needed. Classroom teachers with some musical ability assigned to the assistant superintendent's office to work directly with children and act as teacher helpers are an invaluable asset.

Using clusters of schools as an operating base has worked out well. Children from several neighboring schools have been formed into small orchestras. Another rewarding operation has been an annual festival program or musicale. On such an occasion the parents sense the pride and see the growth of their children in a new skill. Not a small by-product of such performances is the new appreciation that parents and invited citizens have of the worth of the schools.

The amazing development of grade school orchestras in the artificially created North Bronx urban communities, Bronx Park and Bronxwood, is only one aspect of the progress that might be made by developing the resources of the local communities within a great city.

It is to be hoped that a by-product of this experiment in one field of instruction and administration will lead to a careful study of administrative machinery so as to eliminate the time lag between the acceptance of a good idea by laymen and school people and the spread of such an idea.

SCHOOLHOUSE PLANNING

In the Washington Irving School at Waverly, Iowa, a glass partition makes the school administration office more inviting to both pupils and visitors.



Reynolds Photography, Inc., Minneapolis

What's Needed in Administrative Spaces?

Symposium by PERKINS & WILL designers

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Re-Using Plans of Elementary Schools

DONALD R. SHELDON

Page 68

Review of a conference by WILLARD W. BEATTY, EARL B. COMBS Jr.,
ALBERT A. HOOVER, ALVAN LAMPKE, WILLIAM J. MCCOY,
WILLIAM H. SWITZER, and CLIFFORD WALCUTT,
seven men who participate in the designing of schools by
Perkins & Will, architects-engineers, Chicago and White Plains, N.Y.

What's Needed in Administrative Spaces?

**Flexible design makes nonclassroom areas
better today—and tomorrow**

BUILT-IN efficiency — maximum utilization of facilities—is a good answer to uninformed opinions that school administrative spaces are a waste of taxpayers' money.

School critics frequently pounce upon expenditures for offices, pupil guidance, and the like as unnecessary overhead that contributes little to the actual education of children. But most critics will admit that there is a need for properly planned facilities if the school superintendent makes it clear

that the science of education is becoming more precise and that its tools, too, are becoming more specialized. So are tools of other sciences.

Two forces are increasing the demand for better, and sometimes bigger, areas not used as classrooms: (1) The educational job of the school is moving into new areas. (2) The community is using the school building for recreation and other purposes not related directly to education of children. Child health supervision and inspec-

tion have been delegated to the school system by many communities. Student guidance through remedial instruction, disciplinary meetings, and even personality evaluation conferences is becoming an exceedingly important school activity.

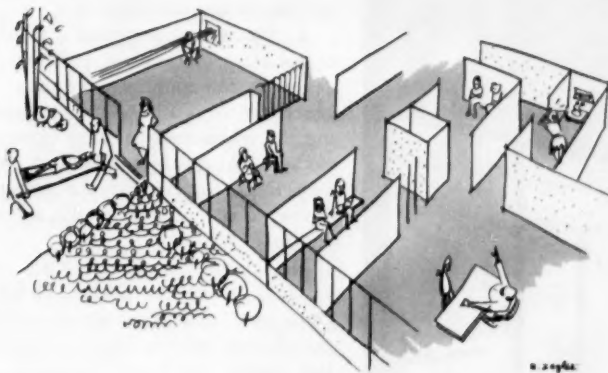
Liaison between the school administration, teachers, parent-teacher groups, and student organizations also increases the load on nonclassroom space. Clubs and civic groups in many communities are using school facilities of evenings.



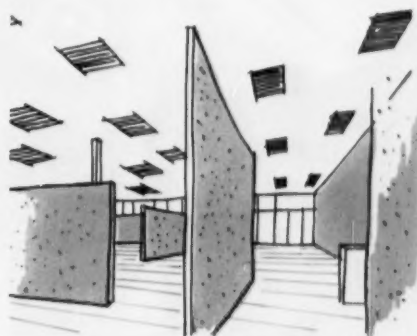
At Spring Avenue School at La Grange, Ill., a semi-permanent partition divides this office from the remainder of the administrative suite.

OPPOSITE PAGE: Dual purpose administrative facilities at Washington School, Lyons, Ill. The administrator's office opens into a larger room by means of folding doors during receptions, board meetings, and social hours.

Both photographs by
Kransten Studio
Evanston, Ill.



Separate rooms for children waiting for health, disciplinary and counseling meetings. Outside door to health room enables pupils to leave privately. Washroom and separate exit off principal's and counselor's offices allow children to erase tears.



The ceiling light fixtures on a grid pattern provide uniform illumination even if the partitions are moved. The air can circulate freely above incomplete partitions.

There are a few principles that promote more effective use of administrative areas:

1. *Visual* privacy is unnecessary for many school functions. *Aural* privacy, however, usually is essential. It can be provided at lower cost than can visual isolation through devices that at the same time make the nonclassroom areas better suited for a variety of uses.

2. Flexibility is required. The administrative area should be designed so that it can change to match varying

needs over a period of years. Flexibility is contributed by non-load bearing walls and easily altered heating, illumination and communication systems.

3. Most of all, function should guide planning of spaces. It is useless to put a burglarproof door on a concrete block vault that can be knocked apart with a hammer and chisel. Moreover, the chances are that the school may not need a burglarproof vault.

Determination of the school's needs,

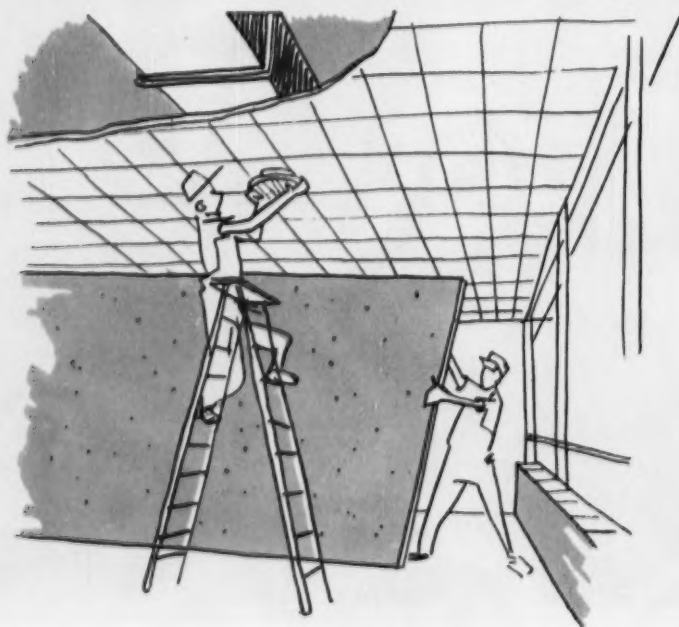
of course, is the first step in planning for administrative spaces. But the operating headquarters, medical area, guidance suite, and other facilities should be made adaptable to future conditions.

In setting a construction budget, it should be remembered that the actual cost of a building with a 50 year life-span is small compared with operating costs of the school system. It may be most economical to spend more for construction that will reduce opera-





ABOVE: Relaxation and privacy are important to teachers. This comfortable lounge at Blythe Park School, Riverside, Ill., includes built-in wardrobe storage and a small kitchen. BELOW: A continuous duct above acoustic ceiling will allow partitions to be moved easily. No costly modification of electrical and communication lines will be necessary.



tional overhead and increase efficiency of teachers and administrators.

Architects have suggested a number of solutions to common problems in designing the administrative area. In general, there is a trend toward bringing the administrative wing closer to students. At the high school in Norman, Okla., for example, the administrative office opens upon the student lounge.

The administrative area in the junior high school at Shaker Heights, Ohio, now under construction, will be placed next to the library, cafeteria and student and faculty lounges.

NOT A "FORBIDDEN AREA"

Alvan Lampke sums up the trend with this comment: "The truly administrative spaces where the core of the business of the school functions should no longer be closed tightly to the student body. With our technological advances in the development of microfilm records, the 'forbidden' area of the administrative suite has shrunk to a small alcove.

"Now the students training in business careers can have practical training right in their own administrative area. The entire school is opened to the student, and he is made to feel that he is an integral part of its functions and development."

Administrative areas formerly were limited by the dimensions of typical classroom bays. This resulted in two banks of rooms with offices on the outside and encouraged isolation from student circulation. As schools spread out, design of administrative spaces becomes less static.

There is danger in placing the administrative unit in a central location, especially if the school is to be expanded later. Some schools are designed so that classroom wings can be extended, but the administrative area is permanently boxed in at the core.

These disadvantages, however, can be overcome to some extent by planning a flexible central area.

"The location of administrative areas as a central hub is of primary importance in an elementary school," says William J. McCoy. "I believe greater openness in primary administration suites would lend to both the flexibility and desirable close integration of teaching and administration."

Reviewing the ways to increase flexibility, Clifford Walcutt says, "Since most office spaces require aural rather than visual privacy, there is a possi-

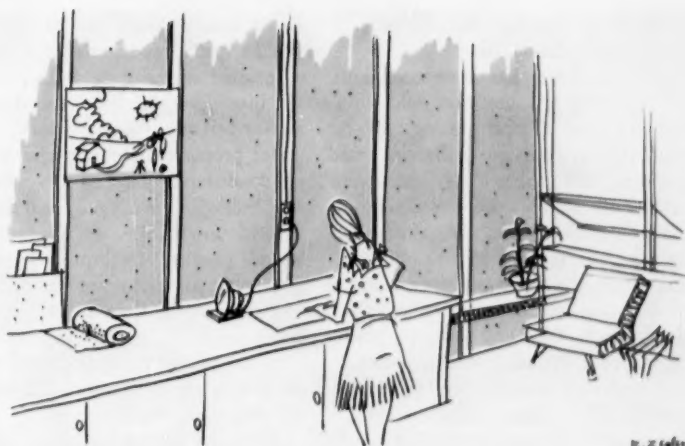
Heinrich-Blessing Studio, Chicago

bility of eliminating doors. Partitions need not be full height so long as the floor and ceiling absorb enough noise so that sound transmission is not a problem."

Electrical and communication wiring can be run under the floor, as in many office buildings. In most schools, however, this probably would be an unnecessary expense.

A continuous duct above the acoustic ceiling, approximately 5 feet from and parallel to the windows, would allow for any changes in partitions in schools of slab-on-grade construction. A similar duct could be installed under the floor where there is a crawl space under the administration wing.

Low-voltage relay switches for illumination would permit running wires along partitions. Wires could be



ABOVE: Low-voltage wires to relay switches can be inconspicuous if run exposed on school administrative space partitions. BELOW: Dental clinic is part of health suite. Screen shields rest cot from view of dental work.

Richard Averill Smith, New York



brought up through the floor in a crawl-space installation.

Willard Beatty has these comments on flexibility: "I am not much disturbed by the idea of running exposed conduits on partition walls. A little planning will enable us to incorporate such items in the general wall design. Our French friends run almost all lighting wires, wires to base plug outlets, water, gas and waste lines exposed on the walls of most apartments. In many places the wires and pipes manage to be innocuous in appearance."

Circulating warm-air heating is suggested for flexible design. Thermostatic controls on supply grilles would control temperature. Supply and return ducts could be laid out so they could be tapped at any point partitions are moved. Air conditioning, in schools where the administrator works all year, could be incorporated.

Air conditioning, too, is indicated when a school produces a large number of printed teaching aids. Duplicating and binding equipment—and their human operators—usually work better under proper temperature and humidity conditions.

Flexible lighting is proposed through a grid installation of fixtures that would provide uniform illumination whenever partitions are located. The low partition also would aid air circulation.

Noise can be controlled with acoustic ceiling material. Cork tile or rugs are suggested for the floor.

Guidance counselors' offices are being opened up to students, too. South Junior High School in Pittsfield, Mass., is a good example. Corridor walls of the guidance suite are glass curtain walls, opening into the main corridor. The single-loaded corridor gives light

to the offices and children now come to the counselor voluntarily. The counselors report that their business has doubled since curiosity and interest of the youngsters have been aroused and the "dragon's lair" impression slain.

Separate waiting rooms for the principal's office and for the health and guidance office are being considered in many school designs. The thinking is that children waiting for voluntary conferences, those called in for disciplinary reasons, and youngsters who may be seriously ill should not be thrown together.

An outside door in the health suite also is suggested so that sick children can be taken home without passing through the waiting room. Toilet facilities are suggested for discharge corridors so that children can wash up after a tearful session with the principal or counselor.

It has been generally assumed that the health suite needs an area 20 feet long for sight tests, but that is chang-

Lobby of this administrative area at Luther North High School, Chicago, provides a pleasant place for visitors waiting for appointments and for students to meet briefly between classes. Bulletin board in classroom corridor beyond doors is convenient to both students and administrators.

Kranzton Studio, Evanston, Ill.





ABOVE: The teachers lounge at Ivanhoe Park School, Riverside, Ill., is a place to relax or write a letter in free time. Kitchen facilities and snack trays make it a good lunchroom. BELOW: Teachers' mailboxes outside the administrative office can be fitted into the open design, as at Hoover School, Neenah, Wis.; messages can then be distributed easily.

ing. Two rooms can be opened to give the necessary length, or the chart can be printed in reverse and viewed by means of a mirror 10 feet away.

The general office also should get considerable attention. The architects strongly recommend that file cabinets and work areas be out of the line of sight of the waiting room. Counters at the front of the office should be scaled down to child height when possible.

A board room can be a serious design problem, if the school board meets in the school building. Several solutions are proposed, among them a "little theater" with adjustable tablet-arm seats. The room is ideal for dramatic, public speaking, and speech correction classes when the board is not meeting.

Requirements vary with the size of the board, but Mr. Beatty suggests: "It is desirable that the board room be combined with the principal's or superintendent's office or, as in the senior high school at Butler, Pa., made part of the testing and conference room for the guidance area. It should serve the school board but should also serve some definite function so that it does not stand idle most of the time."

The problems of designing good administrative spaces can be solved by



Kranston Studio, Evanston, Ill.

the architects. But there is one big job the architect must leave to the school administrators.

Al Hoover puts it this way: "Our main need seems to be the problem

of selling the public the need for more administrative space. Most administrators are reluctant to ask for what they need, since the public does not understand that it is 'teaching space.'"

Stockton, Calif., has a stock plan for elementary schools, which parents, teachers and administrators have worked out cooperatively to fit the school curriculum. So with minor modifications, Stockton keeps on—

Re-Using Building Plans

DONALD R. SHELDON

*Deputy Superintendent of Schools
Stockton, Calif.*

THE board of education of the unified school district at Stockton, Calif., has developed, with the cooperation of local architects, a contract that permits the re-use of plans for new school buildings. Instead of the customary 8 per cent fee, the district pays the architect only $3\frac{1}{2}$ per cent of the contract cost when plans are re-used— $1\frac{1}{2}$ per cent for the redesign of footings and provision for service connections, and 2 per cent for supervision during the period of construction.

Six of Stockton's new elementary schools have the same basic school plan. Committees of parents, teachers and administrators worked with the architect to develop this plan which, they believed, would most adequately serve to implement the adopted elementary school curriculum in Stockton.

These six schools are not exactly alike. Each time the plan has been re-used, minor changes have been made which experience indicated to be desirable. For example, changes have been made in the treatment of the main entrance, in landscaping, and in the parking areas at each of the schools. Only two major changes have been made since the first unit was built in 1951. The roof line has been revised to improve the over-all appearance, and certain corridors have been covered to provide sheltered play areas.

INTERIOR IS FUNCTIONAL

Stockton's basic elementary school combines a pleasant exterior with a functional interior. The complete plan consists of 15 regular classrooms, 31 by 32 feet, two kindergarten rooms,



View of the secretary's office in the administrative unit at a Stockton school. The unit consists of principal's office, secretary's office, public waiting room, health area, teachers room, small classroom for special classes (such as remedial reading and lip reading), book storage room, supply rooms, and the toilets.

36 by 40 feet, a multipurpose room with stage, 90 by 50 feet, storage rooms, a kitchen, and an administrative unit. The administrative unit includes offices for the principal and secretary, a teachers' workroom, an auxiliary classroom for special classes, a teachers' lounge and lunchroom, a health area, storage rooms, and restrooms.

COST IS LOW

The refined plan is one that is inexpensive to construct. Over the three-year period since the plan was first used, construction costs have varied from \$9.61 to \$10.62 per square foot. The cost of comparable elementary school construction in California has averaged about \$13. Architects' fees have been reduced by more than

\$90,000 through the practice of re-using plans.

Another advantage of Stockton's basic elementary school plan is its flexibility. One or all of the units, or any combination of units, may be constructed, depending upon the need. The plan is oriented for each of the four directions and thus can now be located on almost any site. This is possible because the San Joaquin Valley, in which Stockton is located, is virtually flat. This is a great advantage in the re-use of plans, since there is little need to revise elevations.

Enrollment in Stockton schools has increased more since 1943 than during the first 90 years of the district's history, growing from approximately 13,000 to more than 26,000 students.



Kindergarten room has ample storage, supply rooms, and separate toilet facilities adjoining the workroom. Louvers exclude direct sunlight. Ample tackboard and chalkboard space is provided. Lighting is concentric ring incandescent.

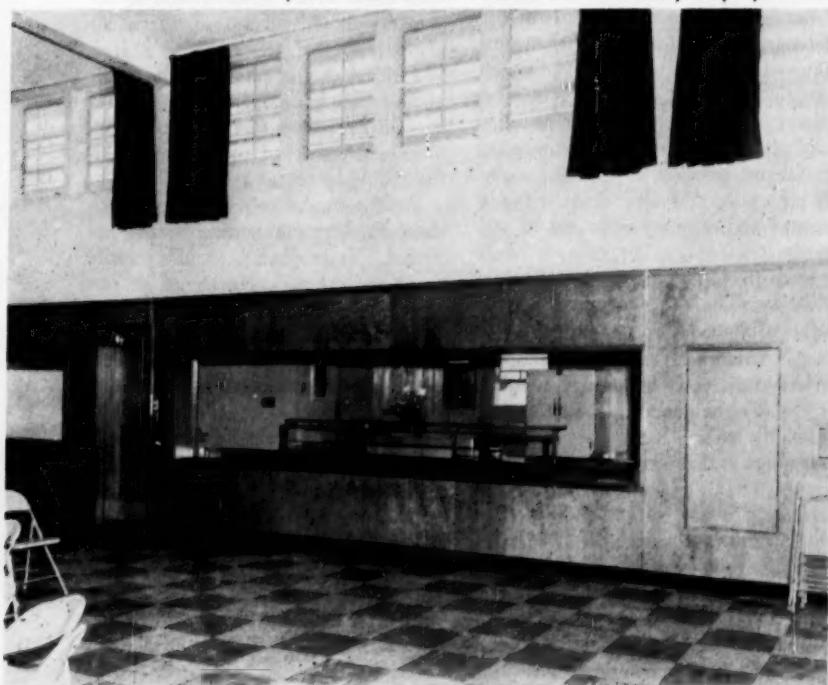


Here is one corner of the faculty dining room. Sufficient facilities are provided so that teachers may prepare their own lunches, if they so desire. Or they may bring in food from the school cafeteria, which is adjacent to this unit.

The need for new classrooms was further intensified by the fact that virtually no school construction had been undertaken during a 20 year period prior to 1943.

The citizens of Stockton have approved four school bond issues totaling \$24,300,000 since 1945. Federal funds in the amount of \$1,100,000 have also been received for the purpose

The multipurpose room, when used as a cafeteria, serves lunches to 300 children from a completely equipped kitchen. Shown is the serving counter with a view of the kitchen. An electrically operated roll-up door shuts off kitchen facilities. Windows have heavy screens and blackout curtains so as to permit use of the room for a wide variety of purposes.



of constructing new school plants. Major projects completed to date include a junior college, a senior high school, a junior high school, 12 elementary schools, and 18 sizable additions to existing schools. Bonds voted last December will provide funds for a new senior high school, two junior high schools, three elementary schools, and three major additions.

Stockton's pupils, teachers and school administrators are pleased with the elementary building that has evolved from this plan, and the savings made possible are highly satisfactory to the taxpayers and to members of the board of education.

The basic plan for our elementary school was developed in 1951 by the architect, Elmore Ernst, who is no longer living. Under Stockton's contract with all architects the school district owns the plans. When a decision is made to construct a new elementary school, an architect is selected, and he makes the adaptations to the basic plan that have been agreed upon. The terms of the agreement are that the architect is paid the regular percentage over and above the 3½ per cent for any major plan alterations.

Since 1951 three architectural firms, other than the one that originally developed the basic plan, have worked with the school district: Victor Galbraith, Corrough and Wong, and Ernest and Lloyd, all of Stockton.

Utah committee is making

A New Approach to Merit Rating

DON A. ORTON

Dean, State College of Education
University of Utah, Salt Lake City

IN ITS recent interim report to the Utah legislative council, the Utah School Merit Rating Study Committee recommended that "the feasibility of merit programs for Utah school personnel cannot be determined by research or experience in other areas but only by actual results of field tests in Utah school districts."

In accordance with a mandate of the 1953 special session of the state legislature, the Utah legislative council appointed in March 1954 a nine-man lay-professional committee, known as the merit rating study committee, "to determine the practicability of formulating a plan, or plans, of merit rating and incentive pay schedules for school personnel in Utah." The membership of the committee consists of five lay members (head of an insurance firm, a rancher, a president of an industrial corporation, a commissioner of a department in the state government, and a commercial manager of a large business organization) and four educators (two classroom teachers, a dean of a college of education, and a superintendent of schools).

In the beginning, all shades of views and feelings relative to the central question were held by the nine committee members. That they were eminently successful in sublimating these feelings and views to the fundamental question of determining if merit rating was practicable is perhaps attested to by the fact that progress marked the work of the committee from the beginning and that the members unanimously concluded that the final answer must come from pragmatic efforts in the field.

In the process of arriving at this decision the committee utilized a wide variety of activities. It held hearings for representative spokesmen for both sides of the question. The research staff, consisting of a secretary and two research assistants (one from industry

and the other from education), reviewed the literature relating to the question and engaged in extensive correspondence within the nation and the state. The staff prepared a questionnaire which had wide distribution. Eminent authorities in the field of teacher education and evaluation were consulted by the committee. In addition to its own deliberations, the committee participated in the two workshops on merit rating that were held on university campuses in the state.

AGREE ON PRINCIPLE

The substance of the committee's interim report to the legislative council was as follows: After this relatively intensive study of the problem, we do not yet know whether merit rating for Utah public educators is practicable. We are in unanimous agreement as to the soundness of the *principle* of differentiating salary on the basis of differences in quality of performance. But whether or not recent research, ongoing practical experience in other places, and other vital considerations will yield the necessary answers to our problems remains to be discovered. We propose, therefore, that the fundamental and ancillary questions be seriously regarded as hypotheses to be tested in two or three selected school districts. The experiment will consist of two phases:

1. Attempts in each of the pilot districts to arrive by consensus at agreement as to an operational definition of teaching effectiveness and to implement an evaluation program oriented to this definition but *unrelated to salaries*.

2. Efforts subsequently to correlate appraisals of quality of performance to salary distinctions.

The committee has expressed certain convictions relative to the cooperating districts' experimentation with this

problem. A credo of 12 "Guides for Field Tests" includes:

1. The practicability of a teacher evaluation must be judged by such results as the ability to determine teaching expertness, real improvement in the quality of instruction, and high teacher morale.

2. A fair trial of the testing program requires the sincere cooperation and support of teachers. Their open minded, constructive activity in developing and testing the criteria is essential if there is to be an objective attack on the problem. The tests must not be imposed upon the teachers, members of the administrative staff, or the school district.

3. Each district in which the tests are to be conducted must develop its own standards and methods. It must likewise judge the results.

4. The methods of identification of what constitutes valid evidence of expertness should be agreed to by all of the interested persons.

5. The evaluation must be built upon a broad base of criteria that reflect all important aspects of teaching. No one stereotyped method of teaching should be set up as a standard.

6. The committee recommends that there be three evaluators for each appraisal. Each district would require many trained evaluators, since no one group of three could deal with all personnel.

7. No fine gradations of competency should be identified. Initially, three categories are believed by the committee to be most practical.

At this writing three districts have accepted the invitation of the committee to serve as experimental centers. In each instance the decision was made only after administrators and teachers had given considerable study to the invitations and only after the teachers by secret ballot had voted to support the study. Teachers in Provo, a city

district, voted 83 per cent in favor of participation; in Jordan district, a large consolidated system, 80 per cent; in the rural district of Sevier County, 86 per cent.

The recent state legislature (March 1955) voted \$25,000 to the committee to support its continuing investigation during the coming two-year period and, in addition, passed legislation which will provide approved districts (approved by the committee) up to one additional distribution unit for each 50 units already recognized in the state-aid formula. Each such unit will be worth \$4050, which sum must be used for expenditures directly relating to the merit rating study.

In Utah, as in most other states, merit rating has been tried before, and it has failed. The committee has cor-

respondence from 73 school districts in the nation which report "successful" merit rating programs. Efforts so far have not been made to assess the criteria upon which this conclusion was reached in each instance, or to determine how widely within the reporting school system this conclusion was shared.

Throughout the state, support for the manner in which the study is to proceed has been widespread. The press has carried laudatory editorials. The teaching profession, through the Utah Education Association, has commended the committee on its procedure and given it extensive cooperation. Specific commendation for the *procedure* of study (not for merit rating *per se*) came from the house of delegates of the U.E.A. at its annual Octo-

ber meeting in 1954. Similar action was taken by the presidents of the local teachers associations at a meeting in December 1954. In receiving the report in September the legislative council praised the committee for its progress and procedure.

The committee is discovering the necessity of reassuring teachers repeatedly that the proposed study is precisely that and not a subterfuge for commencing something that cannot be stopped, regardless of results. Adequate communication and explanation represent correlative needs which constantly face the committee during the current phase of its work. However, support from the lawmakers, the profession, and the public afford encouragement for this new approach to a long standing, troublesome problem.

U.S. Supreme Court takes

Middle of the Road on Segregation

LEE O. GARBER

Associate Professor of Education
University of Pennsylvania

DRAMATIC evidence of the fact that democracy is dynamic rather than static was recently offered to the world by the United States Supreme Court.* On May 31, 1955, the Supreme Court handed down its long awaited opinion regarding the appropriate decrees to be issued to effectuate its decision of May 17, 1954, in which it held that segregation as a policy in public education is unconstitutional. While the 1954 decision was decisive of the question of constitutionality, it will be recalled that, at the time it was rendered, the court was not yet ready to answer the questions as to when segregation as a practice should cease, and how the shift from segregated to desegregated schools should be made.

Instead of issuing a sweeping decree abolishing segregation as a practice, as it might have done, the court directed the states to end

the practice, and in so doing gave them a "reasonable" time in which to act. This may be characterized as a "middle-of-the-road" plan and gives evidence of the moderate temper of the court. Lest it be thought that the court, in adopting this "middle-of-the-road" policy, gave ground and compromised with its previous decision rendered May 17, 1954, it should be noted that it specifically stated that "the opinions of that date declaring the fundamental principle that racial discrimination in public education is unconstitutional, are incorporated herein by reference." It then added that all federal, state and local laws requiring or permitting the segregation of public school pupils "must yield to this principle," thus, in effect, nullifying all such laws.

Again, as in the earlier case, the court spoke with a single voice, the decision being unanimous.

The Supreme Court's recent interest in this question dates back to 1952. At that time, five cases, all different in factual background, were joined be-

cause of a common legal question—the constitutionality of laws requiring or permitting segregation in public schools. One of these cases had its origin in Kansas, another in South Carolina, a third in Virginia, a fourth in Delaware, while the fifth arose in the District of Columbia. In all but the Delaware case, the high court reversed the decision of the lower court. The court first heard arguments on the question at issue in the 1952 term.

Apparently unable to reach a decision, the court ordered rearguments, which began in October 1953. In May of 1954 the court announced its decision on the constitutional issue involved but postponed issuing its decrees to effectuate the decision. It restored the cases to the docket last fall. Briefs were filed in November 1954, but argument, originally set for Dec. 6, 1954, was postponed because of a court vacancy resulting from the death of Justice Robert H. Jackson.

Following the Senate's confirmation of Justice John Marshall Harlan, hearings were resumed in April. Of the

*Brown v. Board of Education, 74 S. Ct. 686; Bolling v. Sharpe, 74 S. Ct. 693. (For a detailed discussion of these cases see: The Nation's Schools, 54:32, 80 (July) 1954.

present members of the court, seven participated in this case from its inception—Justices Hugo L. Black, Harold H. Burton, Tom C. Clark, William O. Douglas, Felix Frankfurter, Sherman Minton, and Stanley F. Reed. Chief Justice Earl Warren, who wrote both decisions—the one on the constitutional question last year, and the recent one—participated in the constitutional hearings in 1953 as well as those involving the nature of the decrees in April of this year. Justice Harlan, of course, participated only in the most recent decision.

As has been stated, the court directed the states to end the practice of segregating their pupils in public schools within a "reasonable" time. Thus it refrained from fixing a deadline and, probably more important than that, it refrained from creating a hard and fast national pattern or procedure to be followed in erasing the "color line" in public schools. The reasoning followed by the court in arriving at this conclusion is significant. It reasoned that, in achieving the constitutional principles enunciated, numerous local problems may be encountered. School authorities are the agencies vested with the responsibility for solving these problems and should be given the opportunity of so doing, but courts must consider whether these authorities act in good faith in implementing the constitutional principles. Therefore, it remanded the cases to the courts which originally heard them, "because of their proximity to local conditions and the possible need for further hearings."

While recognizing that time would be required to solve the local problems likely to arise, it warned that the main interest of the plaintiff's was that of being admitted to public schools on a nondiscriminatory basis, as soon as practicable. Nevertheless, it appeared to counsel fair play and patience:

"In fashioning and effectuating the decree, the courts will be guided by

equitable principles. Traditionally, equity has been characterized by a practical flexibility in shaping its remedies and by a facility for adjusting and reconciling public and private needs. These cases call for the exercise of these traditional attributes of equity power."

Lest it be inferred that in counseling thus, the court might condone delaying tactics and indecision, it was quick to add:

"Courts of equity may properly take into account the public interest in the elimination of . . . [any] obstacles in a systematic and effective manner. But it should go without saying that the vitality of these constitutional principles cannot be allowed to yield simply because of disagreement with them."

TELLS ROLE OF COURTS

Finally, in order that no one, least of all the courts to whom the cases were remanded, might misunderstand their responsibilities in bringing about the desired result—desegregated school systems, as soon as practicable—the Supreme Court carefully outlined the rôle of these courts in detail. It said:

"While giving weight to these public and private considerations, the courts will require that the defendants make a prompt and reasonable start toward full compliance with our May 17, 1954, ruling. Once such a start has been made, the courts may find that additional time is necessary to carry out the ruling in an effective manner. The burden rests upon the defendants to establish that such time is necessary in the public interest and is consistent with good-faith compliance at the earliest practicable date. To that end, the courts may consider problems related to administration, arising from the physical condition of the school plant, the school transportation system, personnel, revision of school districts and attendance areas into compact units to achieve a sys-

tem of determining admission to the public schools on a nonracial basis, and revision of local laws and regulations which may be necessary in solving the foregoing problems. They will also consider the adequacy of any plans the defendants may propose to meet the problems and to effectuate a transition to a racially nondiscriminatory school system. During this period of transition, the courts will retain jurisdiction of these cases."

Moderates in both "camps" appear to be well satisfied. Neither side got all it hoped for, neither got as little as it might have, and both probably fared better than they had expected. The court assumed an attitude of moderation, but at no time did it compromise on principles. It took a dispassionate but firm stand. It counseled fair play and patience, serving notice at the same time that it would not tolerate unjustified delaying tactics. It left in the hands of the states a matter that, historically, belongs there—the matter of assuming the responsibility for operating their own school systems within the constitutional framework. What more could the court have done? It gave a definite answer, as it saw it.

While this decision of our highest court appears to be final, it is too much to hope that it will mark the end of litigation in this area. Undoubtedly, in terms of numbers of cases, this case will be but the beginning of many others to follow. While this decision applies primarily to the five school districts involved in the original five cases, the court's language makes clear the intent of the court that it is of general application. Some have said that the question will now be fought in every school district of every state in which segregation has been practiced. Undoubtedly this is an exaggeration. Litigation will ensue. Of that there is no doubt. Most states, however, will, it is believed, gradually move in the direction of compliance and litigation will be discouraged.



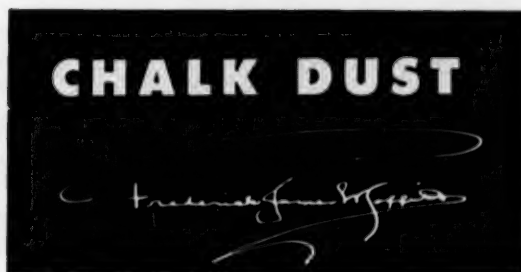
JULY JUMBLE

IF A SCHOOL SUPERINTENDENT is lucky enough to have a desk in July (which most of us don't), he should do a little house cleaning before the flotsam of a new year engulfs him. For in July, and every other month, the average superintendent's desk top looks like an automobile graveyard ravaged by an atomic fall-out. Though such a desk may make an excellent bomb shelter against parents bent on mayhem, it also encourages the cohabitation of mice and crickets, which are likely to get indigestion from the blueprints of the core curriculums that lie in piles, unsullied and unsolved.

Yet it is not suggested that the outer ramparts of the executive desk be disturbed. The innards of the old duplicating machine, the broken school bus gears, the obsolete boiler grates, the punctured football, the imitation onyx pen set designed for gifting rather than writing, the brass knuckles (legal evidence for the forthcoming suit against Mrs. Busty)—these tokens may serve as useful ammunition in case of a surprise attack and should always be kept handy.

It is the inner periphery of the desk top that should be cleaned for working efficiency. This means discarding the unused dictionary, the piles of anecdotal records, the essay contests that were finally judged on the basis of who not what, the pipe cleaners, the ancient jelly sandwich that was a sentimental gift from the home economics department, and the several thousand unsold copies of the senior yearbook, which will be sued for later.

Such material for the trash can, however, should be carefully culled. A clean desk denotes a clean mind and alas! often a vacant one. There are many working tools which the competent superintendent should retain, such as a well filled aspirin bottle, bandages, knee pads, and a few loving cups for broken clips, leaking pens, retreaded rubber bands, and surreptitious cigaret stubs. Also, a really impressive desk demands at least three telephones, one for calls from the wife, one ditto for the board president, and the third for outgoing long distance calls made by the public whenever the boss is napping. The really smart administrator will attach a coin box to the long distance telephone; then



he will cut the wires and spray DDT on the mouthpiece. The desk may be made still more imposing by the plethora of personalized gifts peculiar to the educational processes—those gobbets of notebooks, inkstands, memo pads, ash trays, and playing cards all loudly imprinted with the superintendent's name (or that of his predecessor) badly misspelled.

The desk may have its more practical articles, too, such as a well filled oil can for squirting on the troubled waters, or even an olive branch. If these suggestions are too obvious, an antique shillelah may act as a warning. It is reliably reported that one superintendent used to keep hanging by his desk a dart board on which was posted a picture of his predecessor. He claimed it improved his game and kept him from going crazy, but he was eventually committed, nevertheless.

In addition to all these tools of the profession, the alert superintendent will keep near at hand a few recent railroad schedules and airplane time tables. These, too, are necessities for the well appointed desk if the superintendent still has a desk in July.

AUTOBIOGRAPHICAL

Our Hero Is Fired With Enthusiasm

THE EDUCATIONAL PRESS reports that my neighboring village of Dundee has met the current teacher shortage by accepting the resignation of Mrs. Andrew Weil as a member of the Dundee school board and forthwith appointing her to a teaching position. School superintendents everywhere will be happy at this historically unique reversal of a long-time trend which is common in the annals of superintendology. Ordinarily, the process is this: It is the teacher who quits the profession, who is then elected to the school board, and where is my hat?

As a young and fearless school superintendent, how well I remember the unhappy day that Miss Sylph (the

present Mrs. Busty) applied to me for a teaching position. Her education was indifferent, her teaching record was spotty, and her references were mostly double entendre. In a word, she struck no sweet harmonic chord of rapport in my heart, but because she knew the president of my board and her boy friend was a veteran of the Spanish-American war, I somehow realized that she was exactly the teacher I wanted. I have done it before, and I probably shall do it again for all I know.

In accordance with the custom of those long ago days when teachers were mice and school superintendents were administrators, I assigned Miss Sylph to the coldest room, the most hopeless class and the noon hour lunch supervision. Yes, Wilfred, we actually did it that way in those days. Regularly, I reported to the board on her progress, wrote long, frank criticisms on her looks, her friends, her bobbed hair, and her inability to sing alto in the church choir, all of which are stressed by the best authorities on educational administration. In similar situations, my observation now is that an executive confers, a businessman phones, but a school administrator still writes.

I don't exactly remember the sequence of events that followed. Miss Sylph, in due time, became Busty. Mrs. Busty was elected to the school board by popular acclaim. Many of my successors, after working with her, tell me that they have been fired with the same zeal and enthusiasm as was I.

There is no particular originality, point or moral to this story of school administration only that probably the superintendency in the atom age is more scientific, and more is known about the law of cause and effect. Insofar as Dundee is concerned, I congratulate the superintendent on a unique solution to a disposal problem of some magnitude. If he continues in such wisdom, he may have a long and happy tenure in Dundee.

It Started With Lantern Slides

. . . and before the World's Fair (continued from Page 57)

began to expand. Teachers had to have instruction in the use of some of this material. Consequently, courses were given at the museum for the students at Harris Teachers College and for the teachers already in the system. As teachers became more proficient in the use of audio-visual aids, their demands for more and different materials increased. Classes of children visited the

museum to see the displays, and they needed direction. People came from all over the world (as they do to this day) to see this remarkable institution. And so it went.

Although its expansion was rapid, the Educational Museum never built itself an "ivory tower" as museums of that time were likely to do. It always was and still is closely integrated with

the work in the schools. One of the principal reasons for this close relationship was the fact that it was a "grass-roots" kind of an institution. From the first, teacher committees helped choose new materials and helped decide how these materials were to be used. Always cooperating with teachers, never getting out of touch with children, the staff was able to move along with the schools in general and to remain through the years as a truly functional part of the school system.

During the Twenties the advent of educational moving pictures gave great impetus to the use of audio-visual aids in education everywhere. Many thought of visual aids only in terms of moving pictures. Because of its advantageous position in the field, the museum had been actively circulating moving picture films since 1916, but Miss Meissner and her staff, though quick to adopt the new device and to make full use of it, never lost sight of the value of models, specimens and other objective material. For this reason, the division of audio-visual education is today one of the most fully equipped institutions of its kind in the country. The subject matter of almost all of its pictorial material, whether sound films, filmstrips or still pictures, is supplemented with artifacts of all kinds, with specimens, and with models.

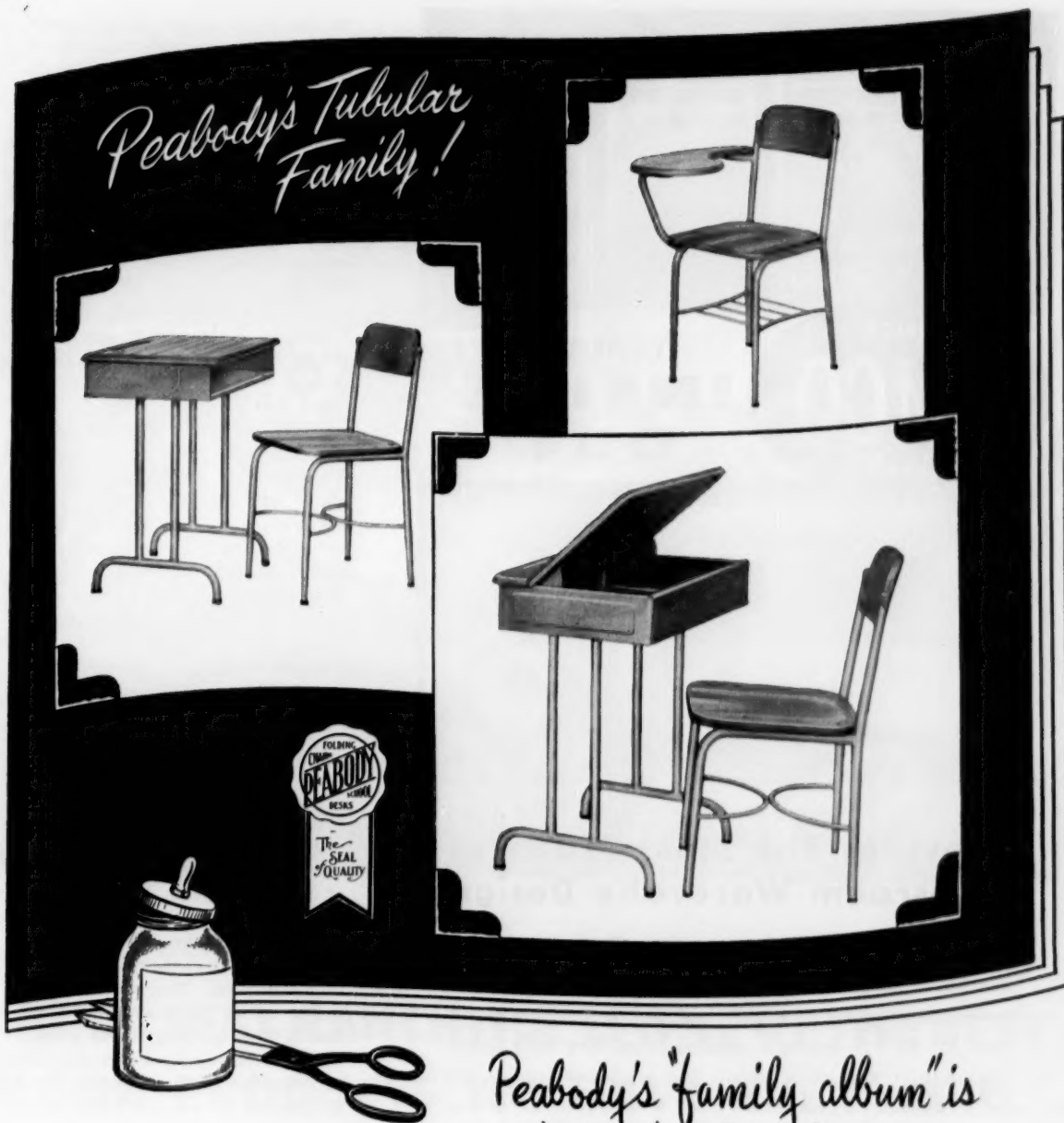
The cyclone of September 1927, the worst setback ever suffered by the museum, was especially damaging to this latter type of material. All this hoard of treasures was literally blown out into the streets. But, largely because of the stern stuff of which Miss Meissner was made, before the end of the year the museum had found a new home, repaired the worst of the damage, and was again in operation.

Today, after 50 years and seven moves, the museum, which now has



ABOVE: To make Egyptian art and nature more interesting to her pupils, a teacher used lantern slides. BELOW: This was the first display room and workshop of the museum. The teachers order materials from these displays.





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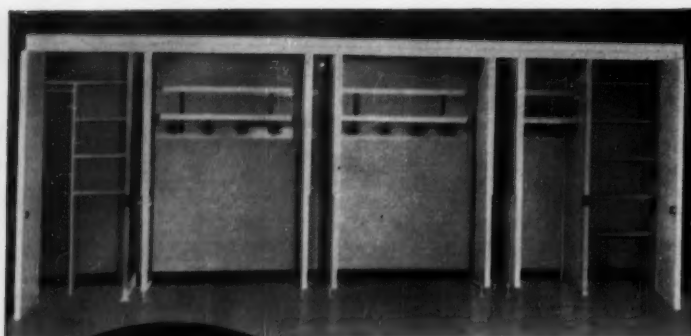
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the title of the division of audio-visual education, has completed a cycle. It now occupies almost the entire building at 1517 South Theresa, the former Harris Teachers College, where once its founders intended it to occupy one room. A professional library (for a short time part of the museum) is located in the same building, along with a curriculum laboratory. The material of the division, including an FM radio broadcasting station, is valued at half a million dollars. Elizabeth Golterman is the present director of the division. She has a staff of 30, including professional and nonprofessional workers.

KSLH, the school broadcasting station, celebrated its fifth anniversary when the entire division celebrated its 50th. Supt. Philip J. Hickey, under whose auspices it was built, is a member of the area commission which has added another audio-visual tool to those at the disposal of St. Louis teachers. It is the educational television station KETC, channel 9. This last, however, is not part of the division of the audio-visual education. It belongs to the entire metropolitan area of St. Louis. Hence, KSLH remains the division's latest development.

RELATED MATERIALS

The KSLH staff, part of the division's staff, develops the greater part of its own programs. In preparing its programs, four of which have received national recognition, the KSLH staff makes use of all of the related material of the division. Thus a teacher who makes use of the nationally known French language program for elementary children or assigns a participation program for primary children which is broadcast all over the United States can supplement these programs with films, records and objective material which the children can see and hear and touch.

This is just a brief sketch of 50 eventful years in the development of a great educational tool. The place audio-visual aids hold today in the minds of the general public as well as in the minds of professional educators is itself a tribute to the foresight of those who first realized its great potentialities. Both Mr. Soldan and Mr. Rathmann made great contributions to the public school system of St. Louis, but none was greater than the establishment of the first systematic plan to make use of audio-visual aids in the education of the city's children.



Architects: Clarence Forsell A.I.A. and William Carr A.I.A.

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THE SCHOOL LUNCH

Conducted by Mary deGarmo Bryan

Louisiana study shows how

Children Benefit From School Feeding Program

EVELYN L. TERRELL

State School Lunch Supervisor, Louisiana State Department of Education

RITA BELLE ATTAYA

Research Associate, School Lunch Section, Louisiana State Department of Education

IN LOUISIANA the school lunch program has become a vital part of the total education program, with approximately 75 per cent of the children in attendance participating in the program. Participation increased rapidly from approximately 35 per cent in 1947-48 to 75 per cent in 1953-54. Evidence of the effects of this participation is manifested in the physical growth of the school children and is reflected in their attitudes, mental abilities, and interests.

Methods of Selection and Study. This study was made to determine the part the school lunch plays in the growth of school children by

measuring the rate of increase in their height and weight. The measurements of height and weight, when compared with a standard, were used as an indication of the general health of the individuals. An increase in height and weight at a greater rate than usual is one indication of the superior growth progress of the children.

Parishes (counties) in which the study was to be conducted were selected on the basis of geographical location to include at least one parish in each area of the state. Then with the help of each parish (county) superintendent and/or school lunch supervisor schools were selected to

include children from families of different income levels and heredity; the schools were located in both urban and rural areas. This sampling represents a cross section of the children in the state.

First graders were studied, primarily because they had never participated in a school lunch program, which eliminated any "carry-over" from the previous year, and also because growth at this age level progresses, usually, at a pace uninterrupted by any major physiological changes.

In order that the evidences of increased growth rate might be conclusive, a sufficiently large number

Growth of children was measured by the research associate.

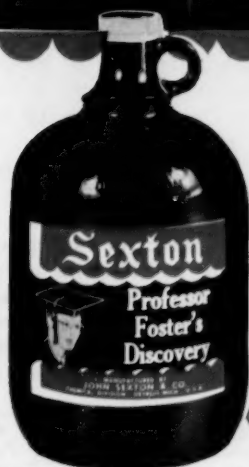
The research associate standardized all of the measuring.



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of individuals, approximately two thousand, was selected. Since it is impossible to conduct a controlled study as to food intake and utilization in the situations existing in the schools, it was decided to use a sufficiently large number of subjects in order to compensate for individual error or for error that might result from extreme circumstances. In order to eliminate a further variable, the research associate made all the height-weight measurements in each school.

Lunches served in all schools were Type A complete meals furnishing at least one-third of the daily nutritive requirements of children of this age. Meals included meat, egg, fish or cheese; fruits and vegetables; bread, and frequently another cereal; butter or fortified margarine, and milk.

Measurements of height and weight of first grade pupils were made at the beginning and at the end of each school year for two years, 1952-53 and 1953-54. Only data obtained from those individuals who were present for both the initial and the final measurements were retained for analysis. There were 2120 children studied, but complete data were obtained on 1723 pupils. The decrease can be accounted for by absences resulting from childhood diseases or other illnesses and by individuals transferring from one school to another.

CONTROL GROUP USED

Approximately 75 per cent of the children who participated in this study also participated in the school lunch program. The remaining children did not participate in the program and were used as a control group. In addition to nonparticipants, the individual's original measurement was used as his own control. In order to have accurate information regarding each child's participation in the school lunch program, a daily record was kept for the entire school year by the respective first grade teachers.

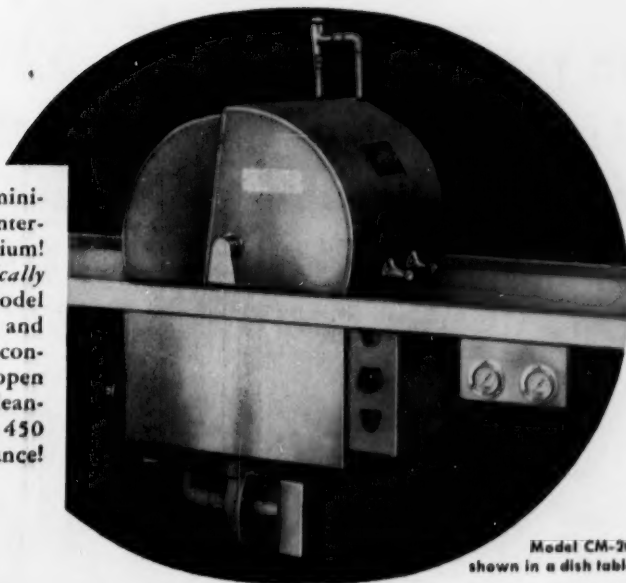
By the use of the measurements obtained, each child was placed in a percentile grouping. An increase in percentile or a higher percentile group means that the individual has grown at a more rapid rate than he had originally. Increments were compared with the tables compiled by Stuart and Meredith¹ in a 15 year study of

¹ Stuart, Harold C., and Meredith, Howard: Use of Body Measurements in the School Health Program, J. Am. Pub. Health Assn. Vol. 36, No. 12, (December) 1946.

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thousands of normal children in Iowa. The Iowa authors separated the children by age and sex and tabulated body weights and measurements into percentile groups: 10, 25, 50, 75 and 90. Each individual was placed in a percentile classification after each measurement throughout the nine-month period, and the difference in the successive percentile grouping was noted. Normally, in a group of 100 children of the same age, it is expected that 10 per cent of the individuals will be small or fall in the 10 percentile group, whereas another

10 per cent will be large and will fall in the 90 percentile group.

Results of the Study. Measurements taken at the beginning of the study show that 28.6 per cent of the total number of individuals were in the 10 percentile (small) group. This is almost three times the number of small children that normally is expected in this group. This cannot be attributed to heredity since children of different ancestry were included. A similar situation was observed in a study by Moore et al.,² which disproves the small-stature theory. Also,

instead of 10 per cent in the 90 percentile, there was only 5.8 per cent, or approximately one-half as many of the large individuals as might have been expected to fall in this group.

Even though there is a natural increase in height and weight of 6 year olds over a period of nine months, the comparisons of increase of growth between children eating the school lunch and the control group showed striking differences.

Results of this study show that 50.6 per cent of the pupils who participated in the school lunch program increased their percentile grouping, 9 per cent showed a decrease, and 40 per cent showed no change. Of those who did *not* participate in the program, only 8.4 per cent showed an increase, but 60 per cent showed a decrease, and 31.4 per cent showed no change.

LOW ECONOMIC STATUS

In the school with the lowest per cent of participants in the school lunch program, 30.8 per cent of the participants showed an increase in their percentile. This school is located in a community whose economic status was the lowest of those included in the study. There were 53 per cent of the children in this school whose growth rate was much below that normally expected. In other words, these children began at a low point. And although they ate the Type A lunch, they were not receiving sufficient amounts of the right kind of food for the other two meals to increase their growth rate. This bears out the findings of Dreizen et al.³ that the mean speed of growth is less in children with nutritive failure than in those without nutritive failure.

These results show that there is a significant difference in the growth of first grade pupils who did and did not participate in the lunch program.

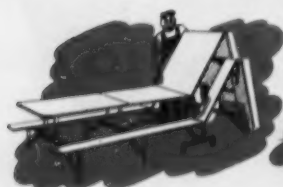
Although a child may be progressing at a satisfactory rate of growth before he enrolls in school, the added activities of his first year in school increase the importance of a well balanced lunch for his optimum growth.

(A bulletin about details of this study can be obtained from authors.)

² Moore, Margaret C.; Rooks, Eola P., and Peters, Inez H.: Report of Supplementary Feeding of First Grade Children in a Central Louisiana Town, J. La. State Med. Soc., 105:400-403 (October) 1953.

³ Dreizen, S.; Currie, C.; Gilley, Ellie Jo, and Spies, Tom. The Effect of Nutritive Failure on the Growth Pattern of White Children in Alabama. Child Development, Vol. 24, 1953.

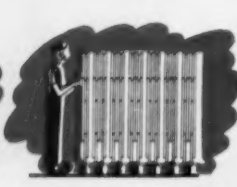
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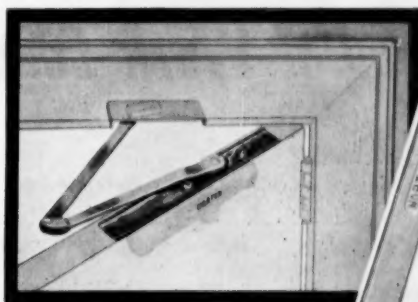
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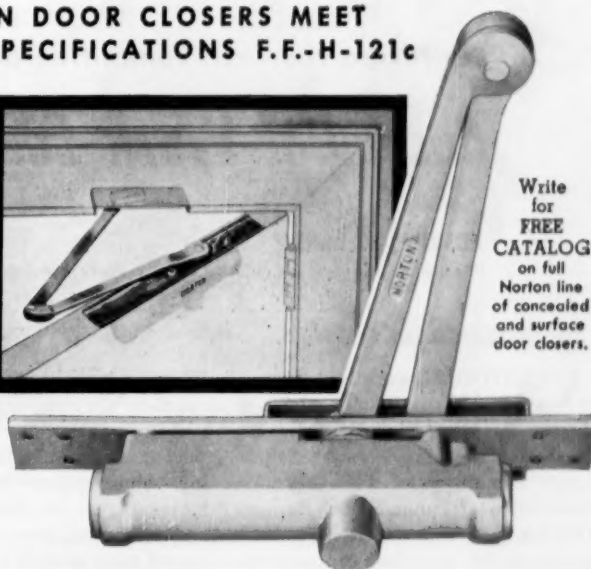
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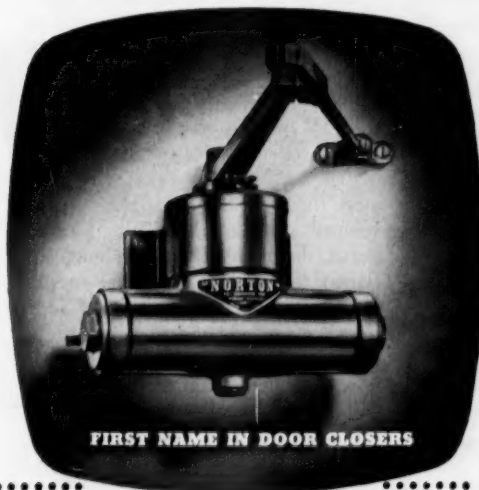


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California research committee develops

Custodial Work Load Formula

EDWIN G. BERRY

Director of Maintenance, Unified School District, Vallejo, Calif.

A CUSTODIAL work load formula applicable to any size school or district has been developed by the northern California section maintenance committee of the California Association of Public School Business Officials. It is intended as a basic guide, to be modified to meet the requirements of a specific school.

When custodial work loads are set up, there are many factors besides the standard of work that have to be considered, such as the size of the building, topographical location, age of building, type of classroom furniture and equipment, type of heating, landscaped areas, amount of pavement, and sidewalks adjacent to buildings.

In our research work we found a wide variety of opinion as to what actually constitutes an adequate custodial work load assignment. In developing the formula, our committee took the stand that a standard of work would have to be set before an application or allocation of work could be determined. Therefore, we agreed that we would think in terms of the number of man-hours required to maintain a school plant so that it would be in a clean, sanitary, properly heated, ventilated and safe condition. It is to meet these requirements that we developed a formula. This formula shows the number of man-hours required to perform the actual routine cleaning duties. The amount of additional custodial time that has to be added to the formula depends upon how much mechanical maintenance, utility work, and other assignments are requested of a custodian.

Several methods of approaching the problem of developing a formula were considered. First of all, we thoroughly explored the advisability of attempting to adopt the Gilbert Formula to school custodial work. There has been a good deal of research work on the Gilbert Formula in the East, particularly by contract building maintenance organizations. The Gilbert Formula employs the use of a stop watch on each and every operation and move that a custodian makes. For example, it requires so many seconds to dust a classroom desk. This factor is multiplied by the number of desks in a room to determine the amount of time to be allocated for this particular operation. The same procedure is used on all custodial operations, so that a total work load for a given number

Formula for Determining Custodians Needed

This formula is designed to show the number of custodians required to perform the normal routine cleaning duties. Adjustments may be required for added or subtracted custodial duties.

1. Given: 1 custodian for each 8 teachers, find teacher factor

$$\frac{\text{No. of teachers}}{8} = \text{Teacher factor (correct to two decimal places)}$$

2. Given: 1 custodian for each 8 teachers, find teacher factor

$$\frac{\text{No. of pupils}}{225} = \text{Pupil factor (correct to two decimal places)}$$

3. Given: 1 custodian for every 11 rooms* to be cleaned, find room factor

$$\frac{\text{No. of rooms}}{11} = \text{Room factor (correct to two decimal places)}$$

4. Given: 1 custodian for every 15,000 square feet of building area, find square foot factor

$$\frac{\text{Total sq. ft. bldg.}}{15,000} = \text{Square footage factor (correct to two decimal places)}$$

5. Given: 1 custodian for each 2 acres of upkeep grounds, find grounds factor

$$\frac{\text{Total acres upkeep grounds}}{2} = \text{Grounds factor (correct to two decimal places)}$$

6. Add the five factors and divide total by 5 to find actual number of cleaning custodians needed

$$\frac{\text{Total 5 Factors}}{5} = \text{Cleaning custodians needed (correct to two decimal places)}$$

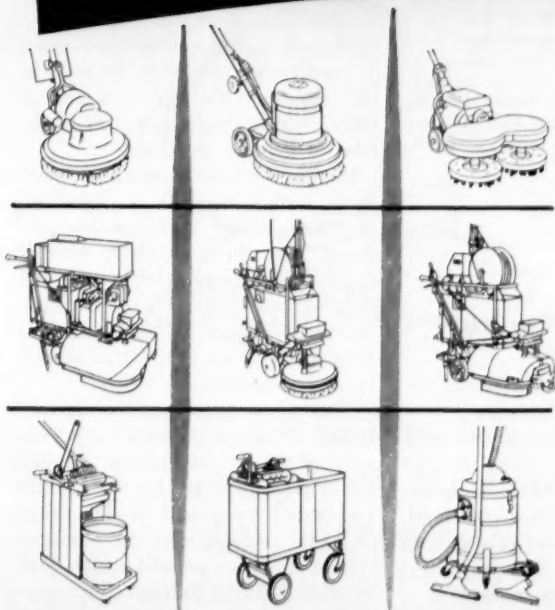
*Rooms include all rooms that are to be cleaned by custodians, such as offices, storage rooms, toilets, classrooms, gymnasium areas. An average classroom has 1000 square feet. Using this as a basis, break large area rooms (gymnasiums, multi-use rooms) into equivalent classrooms.

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No. Schools Report.	Total Teachers	Total Pupils	Total Rooms	Total Square Footage	Total Acres	Cust. Required Formula	Cust. Actually Employed	Difference
13	247	8,839	278	569,148	42.02	29,989	38.00	+ 8.011
5	108	2,958	148	122,265		12.052	11.99	- 0.062
6	76	2,489	120	128,900	19.11	10.07	9.5	- 0.570
13	209	6,452	301	312,440	34.18	24,465	27.75	+ 3.285
23	597	17,126	1,075	1,035,678	186.435	81,993	71.83	-10.163
3	121	3,255	159	217,234	43.28	15,924	15.00	- 0.924
9	95	2,949	123	130,500	31.5	12.060	10.57	- 1.49
34	934.75	26,668	1,622	1,895,045	309.03	132.97	154.64	+ 21.67
22	462.5	13,769	1,330	955,733	140.636	74,961	87.016	+12.055
4	52	1,972	112	77,500	42	10.321	6.74	- 3.581
132	2,902.25	86,477	5,268	5,444,443	848.191	404.805	433.036	+28.231

This is a tabulation of data received from 10 school districts that used our formula. Some of the districts reporting did not have time to factor all of their schools. However, we do feel that this is representative of small, medium sized, and large school districts.

of hours is determined. We have data indicating that a study of this kind has been made in several hundred large buildings by contract maintenance organizations in the East, but only 2 per cent of the maintenance contract people used this system. Our committee did not wish to conduct a work and time study that had to be set up with a stop watch.

We considered developing a formula on units of work. This we found required an individual detailed survey of each school plant which would be difficult to convert into a formula that could be used for all types and sizes of schools. Some people believe that a custodian is needed for every 250 pupils; other officials state that a custodian is required for every 16,000 to 20,000 square feet of floor

area. In many instances they are right, but for other schools this would not be applicable. After a study of all these methods, we decided that our approach would have to be one that included a factoring formula in order to compensate for various inequities that may be encountered in individual schools. After taking all these things into consideration, our committee decided on the formula shown.

The article is based on a report presented at the recent annual convention of the California Association of Public School Business Officials at Coronado, by Mr. Berry as chairman of the association's maintenance committee, northern section. Other members of the committee are: John Ansel, Alameda; Joe Baker, Mount Diablo School District, Concord; Horace Jones, San Jose; William Rudio, Mill Valley, and Francis Queirole, Stockton.

California Architects Report on Effectiveness and Values of Luminous Ceilings

STANFORD, CALIF. — The effectiveness and value of luminous ceilings for schools was discussed by schoolmen, architects and lighting engineers at a recent conference of the Illuminating Engineering Society at the School Planning Laboratory of Stanford University.

San Francisco architects who reported on installations in four California schools concluded that this type of illumination provides an abundance of high quality light with acceptable glare ratio at no increase in total building costs. They cautioned, however, that such lighting should be planned

in terms of specific needs of the elementary or secondary school.

Architect Mario Ciampi reported that the luminous ceiling in the Olympia School at Daly City, Calif., "made possible a uniform roof level, elimination of south daylighting, and the use of masonry construction—employing the lift-slab method."

Architect Donald Kirby, reporting on the installation at the White Elementary School at Rio Vista, Calif., said: "It was possible to provide extremely low (7 foot 11 inch) ceilings with adequate light and with ventilation through a natural gravity system.

A further innovation was the use of 20 foot side corridors as multi-use space for lunches and play on rainy days."

Architect John Carl Warnecke describing the installation at De Anza High School at El Sobrante, Calif., suggested that "one of the values was the possibility of reorienting a building to meet site limitations." He warned that the "answer to certain problems under certain situations should not be interpreted as a solution that would apply in other situations."

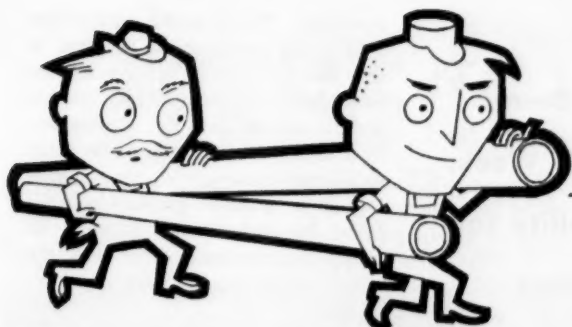
Architect Charles Masten, reporting on a new high school in Sunnyvale, Calif., said that luminous ceilings installed there made possible "better orientation of the building on the site, elimination of the necessity of breaking the roof diaphragm, and elimination of three-fourths of the window glass."

"Although classroom lighting has received due consideration," stated Leland Brown, professor of electrical engineering at Stanford University, "there has been little study of the needs and actual improvement in lighting in some of the nonacademic facilities, such as shops and science laboratories."

In his review of progress in providing good seeing environment, Mr. Brown pointed out that "higher light levels and higher quality light make it possible to use color lavishly in the classroom, although wide use of intense colors might pose new problems to lighting engineers."

Chairman of the program on Stanford's campus was C. T. Bakeman, of Bakeman and Associates. He predicted that "wattage costs, over-all square foot construction costs, and glare-to-book brightness ratios indicate that luminous ceiling installations have much promise in future school-house construction."

"One of the great needs at the moment," emphasized Charles W. Bursch, assistant chief of the division of public school administration for the California State Department of Education, "is some evidence that the luminous ceiling provides comparable high quality light in a 9 to 10 foot ceiling room as do some of the lighting solutions developed and practiced in rooms with 12 foot ceilings.—Information provided by JON S. PETERS, educational consultant, school plant operations and maintenance, School Planning Laboratory, Stanford University.



What are the men doing?

They are retubing the fuel economizer.



What happened to the old tubes?

Sulphuric acid ate holes in them.



Who put sulphuric acid in the fuel economizer?

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Why did they purchase the high sulphur coal?

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But was it really cheaper by the time they put the new tubes in?

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WORLD'S LARGEST CARRIER



OF BITUMINOUS COAL

Teacher's Role Is Static, Says Harvard Dean

Before 12,000 Educators at Schoolmen's Week;

Good Board Member Shares Responsibility for

Planning, Counsels County Superintendent

THE University of Pennsylvania's Schoolmen's Week, held April 20 to 22, emphasized current problems relating to administration, supervision and teaching.* The high light of this year's program was the appearance of Dean Francis Keppel of the Graduate School of Education, Harvard University, speaking on "The Place of the Teacher in School Organization and Its Implications for Teacher Supply in the Future."

TWO PROGRAMS FOR ADMINISTRATORS

Some other high lights were the address by Michael Kies, superintendent, Milwaukee County, Milwaukee, made at the annual dinner of school administrators and school board members; the program devoted to school lunch and nutrition at which Prof. Clive M. McCay of the school of nutrition, Cornell University, discussed the problem of how much of the basic science of nutrition is being put to use, particularly in school lunch programs; the Phi Delta Kappa and Pi Lambda Theta dinner, at which President Gaylord P. Harnwell of the University of Pennsylvania discussed the university's educational self-survey financed by the Ford Fund, placing special emphasis on the place of the school of education in the survey; two addresses by Prof. William S. Gray of the University of Chicago, on basic instruction in reading in the middle grades and in the primary grades; the address by Dean Frank G. Dickey, University of Kentucky, on "Who Profits From Good Supervision and

Why?" and two programs primarily for administrators, one dealing with state school administration and the other with planning and constructing school buildings.

Dean Keppel, in considering the problem of the present teacher shortage, considered four main factors. First, he raised the question of whether the task of the schools will, in the future, be more arduous and difficult. Then, he considered the prestige of the teaching profession in five countries—the United States, Great Britain, U.S.S.R., Germany and Japan—and noted that teachers held nearly the same relative rank in all five industrialized societies. He also considered the annual loss of teachers from the profession, and finally, the status of teachers' salaries and the "progress built into the rôle of the teacher."

TEACHER DOOMED TO IMMOBILITY?

The Harvard dean appeared to put his finger on the pulse of the problem when he said: "For some few, the idea of progress is conceived in administrative positions, largely separated from the teaching task. I am certainly the last to decry the importance of the administrator, if only for reasons of self-preservation, but this does not necessarily solve our problem in the classroom. Let me be frank: There is not great progress, in the usual sense of that word, in the teaching rôle—for the young man with his first class has just as great responsibility as his oldest colleague under the present scheme of things. To use the sociologist's language, the rôle definition of the teacher is not only the same regardless of the experience or the particular skills of the individual, it is also remarkably static."

"There has been little change over the years as far as the amount of the teacher's influence, calculated in pupils affected, is concerned," Dean Keppel

continued. "Where in this picture does your young applicant see progress, in the sense of a way of showing his particular talents and receiving rewards for his success in their application? In a society which is based on large social organizations, with advancement judged in terms of greater responsibility for either larger numbers of people or more complicated ideas, the school teacher seems doomed to immobility."

In conclusion, Dean Keppel declared: "I fear that we can fiddle with the mechanics of our present procedures with little effect if the real problem lies in our basic policies and structure. The schools are far too important to society to permit the comfort of familiarity, if that familiarity restricts progress. The time has come, in my judgment, to break the cake of custom."

THE GOOD BOARD MEMBER

Speaking on "Highs and Lows of School Board Membership," Michael Kies paid tribute to the work of school board members. He considered the task of board members, historically, and pointed out the added importance attached to it today. In this connection he drew examples, from his own county, illustrating the development of leadership among boards of education and the attendant good effects this has had in the improvement of education. Finally, he commented on the improvement in the services and terms of board members and made a plea for self-evaluation by all board members. In so doing, he pointed out the pitfalls to effective board membership and warned his audience against them.

Describing the good board member, Mr. Kies said:

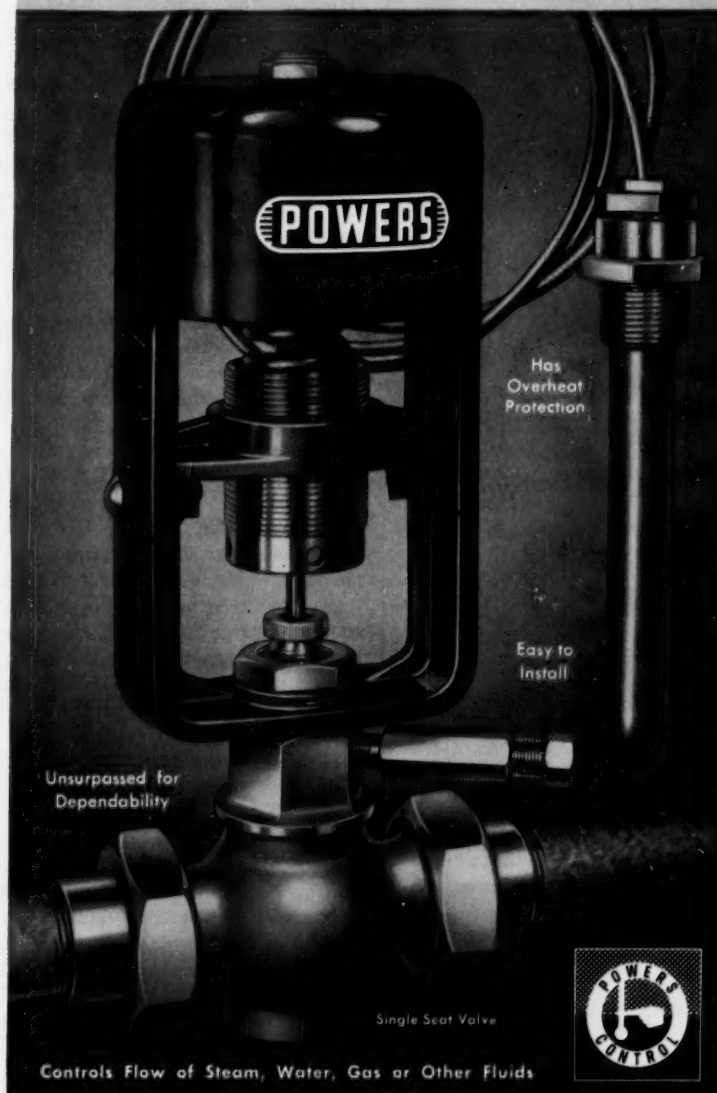
"With the analysis of actual situations and problems, superintendents and fellow board members rate most effective the member who requires facts to support all decisions, who will exercise initiative and perform leadership, and who will make his decisions on crucial questions calmly and objectively. From his understanding of community attitudes and needs he makes suggestions that are important in shaping policy."

"The board member is more valuable who is active in community groups and is willing and able to interpret the school policy and school program. He takes an interest in, and works with, the teaching and nonteaching personnel groups. He works ef-

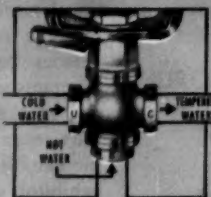
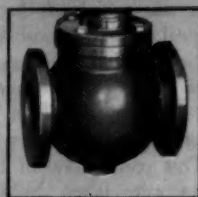
*Schoolmen's Week is an annual educational conference (begun in 1914) held each spring, on the campus of the University of Pennsylvania. Its proceedings are published and available for distribution a few months later. Those interested in obtaining copies should write Dr. William Arnold, director, Schoolmen's Week, University of Pennsylvania, Philadelphia 4, Pa. (Price \$1.)

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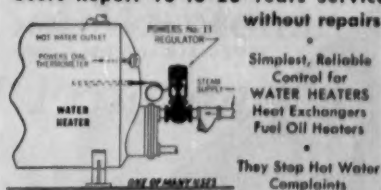
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fectively as a member of a team which shares the responsibility for planning rather than merely reviewing proposals presented by the superintendent."

URGES FLEXIBLE PLANT PLANNING

On Wednesday afternoon, April 20, school administrators participated in a program dealing with school buildings. N. L. Engelhardt headlined this program, speaking on "Educational Specifications in Plant Planning." He emphasized the fact that "the school buildings planned today should serve the educational objectives of the present but should be adjustable to the inevitably changing educational needs as they emerge in the future."

SELECTING AN ARCHITECT

Joseph Wigmore, Philadelphia architect, whose subject was "What to Expect of the Architect," emphasized the need for cooperative planning. He pointed out that a school board, after interviewing several architects, should base its selection on professional qualifications, ability, personality, background and familiarity with school construction. In commenting on cooperative planning, he said: "Educators who pose as building specialists and architects who pose as educational specialists should be looked upon with equal question. While both parties must work for better understanding of each other's problems and feel free to suggest and recommend, fundamental authority based on understanding and experience should be accepted."

SOME 12,000 ATTEND

This year's Schoolmen's Week appeared to have reached a new high, measured in terms of the number of registrants; the number, quality and breadth of the program offerings, and the number of exhibitors. Some 12,000 educators, including teachers of all grade levels from kindergarten through high school, supervisors, principals and superintendents attended. The program, including 118 general and sectional meetings, was sufficiently broad in scope to appeal to all. Almost 400 persons participated in the various programs as chairmen, panel members, and speakers. Far from the least attractive part of the conference were the exhibits. This year a total of 160 exhibitor spaces were taken, by 123 different exhibitors.—*Reported by LEE O. GARBER, associate professor of education, University of Pennsylvania, Philadelphia.*

The NATION'S SCHOOLS



How to make School Maintenance *A Beneficial Program*

rather than an expensive chore

When asked the definition of school maintenance, an administrator once said, "Well, it's nothing more than keeping the building and equipment clean . . . and, of course, making the necessary repairs or replacements." But he has changed his opinion.

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Quality Motion Picture Equipment Since 1910

Stimulates Long-Range Schoolhouse Planning

Book Review by BRUCE MILLER

Superintendent of Schools, Riverside, Calif.

TOWARD BETTER SCHOOL DESIGN.
By William W. Candill. New York City: Architectural Record Book published by F. W. Dodge Corporation, 1954. \$12.75. Pp. 260.

MR. CAUDILL has furnished the field of schoolhouse planning with a most interesting and informative book long needed in this area.

From its thoughtful and provocative introduction by Richard J. Neutra to the excellent grouping of case studies at the end, it is exceptionally well written and documented. The layout is excellent. Illustrations and photographs are good, and the index is adequate. The two columns of clear, legible print per page account for so much information's being presented in only 260 pages.

STRESSES HUMAN VALUES

In Chapter 1, dealing with the pupil and the school plant, an architect talks about shelter from the architectural standpoint while keeping in mind human values.

Chapter 2 on education and the school plant points out the needs of the pupils and shows the "process" by which these needs as interpreted by educators are translated into design. Throughout the chapter and book, one is impressed with the attempt to get at the function of both education and the planning to house it.

Chapters 3 and 4 are more technical, providing the architect with many ideas as to how specific building problems can be solved. Perhaps these chapters are a bit "over the head" of the educator, but at least they will serve as excellent references when he is faced with the task of making decisions with the architect.

Chapter 5, dealing with city planning, sets forth a pattern to be desired and worked toward. Here again, as

in other sections, the author is very much interested in the relationship between schools and the pupils. "Their functioning, their location, and their costs are the concern not of any small owner or manager group but of the entire community citizenry. Ours are public schools; they belong to the public and must serve the interests of the communities to which they belong as they have from the beginning in this country."

In Chapter 6 the educator will find many discussions close to his heart such as those concerning expansibility, flexibility and circulation. This is an exceptionally fine chapter for the schoolman as it gives him a chance to see what the architect needs to know before he can start drawing.

The last chapter on the planning process sets forth requirements for the future and the development of long-range plans so that money available for the future will make it possible to meet educational requirements and yet achieve freedom of design.

APPROACH IS HUMBLE

As an educator, I am impressed with the humility with which the author approaches the task of finding functional design for our programs. He has succeeded in stimulating me to strive to be more articulate about the patterns of both present and future educational development.

This book would be worth its price of \$12.75 if for no other reason than the listing of case studies beginning on page 200 and continuing through page 260. Here are presented the down-to-earth practical problems facing both the architect and the schoolman, and while not all of the 91 cases listed provide the solutions each of us might use, yet it is the best single contribution of its kind that I have seen.

Why are factory-built cabinets best for schools?



HOMEMAKING foods laboratory and sewing room at South High School in Minneapolis, Minnesota. This installation handled by Haldeman-Homme, Inc., St. Paul 14, Minn.



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To be sure, cabinets can sometimes be built on the job for lower initial cost. But school records prove that they are far more expensive in the long run.

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BURNS SALES COMPANY—Indianapolis 8, Indiana; Indiana
RTISER SALES COMPANY—Warren, Ohio; Ohio

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AMERICAN SEATING CO.—Los Angeles 3, California; California (Southern)
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wire from **Washington**

By **EDGAR FULLER**

Drafting aid bill

► Last month Chairman Graham A. Barden of the House education and labor committee closed the hearings on federal school construction aid and appointed a subcommittee to draft a bill for the committee. Members are Representatives Kelley (D.-Pa.), chairman, Elliott (D.-Ala.), Landrum (D.-Ga.), Bailey (D.-W.Va.), Thompson (D.-N.J.), McConnell (R.-Pa.), Gwinn (R.-N.Y.), Kearns (R.-Pa.), and Frelinghuysen (R.-N.J.).

Among the members of the subcommittee, Representatives Landrum and Gwinn both announced opposition to any legislation. The other seven members will probably work out a compromise bill based primarily on the bipartisan proposal of Representatives Kearns and Bailey. It will contain some elements of the Administration bill sponsored by Representatives McConnell and Frelinghuysen and the bill introduced by Representative Elliott.

A majority of the full committee is reported ready to vote down any anti-segregation amendment offered and to seek passage during this session of Congress. The Supreme Court's decision to leave enforcement of its judgment of May 17, 1954, to school boards and local courts may have eliminated this issue as a serious impediment to legislation. The court said nothing about enforcement through federal legislation and left strong implications that this is not a proper course.

Several members of the Kelley subcommittee, including the chairman, have expressed the opinion that the court's most recent decision clears the way for action on a school construction aid bill.

Segregation in federal laws

► The question of how far Congress should seek to enforce desegregation through federal laws in fields other

than education is gaining in importance every week.

Among proposals sidetracked on this issue at present is the national reserve plan, which opponents claim is a modified U.M.T. An amendment to deny federal funds to units of the National Guard in any state in which the guard is on a segregated basis passed the House on two separate votes. The southerners who hold most of the key positions in the Congress stopped the debate and will probably postpone action indefinitely under these conditions. They may avoid the issue by merely extending the present draft law, which expires June 30.

No one knows how much the Supreme Court's decision on implementing desegregation in public schools will affect the issue of segregation in other fields of federal legislation. The expectation is that anti-segregation amendments will be offered on all federal legislation where the question of segregation may be involved.

Competition from highways

► The highway bill on its way through Congress calls for about \$18 billion to be spent on highways in five years. Of this amount, the federal government would spend 70 per cent and the states 30 per cent. Federal funds for primary roads would increase from \$248 million in 1955 to \$400 million in 1957; for secondary roads, from \$165 million in 1955 to \$300 million in 1957; for urban roads, from \$138 million in 1955 to \$200 million in 1957; for interstate roads, from \$25 million in 1955 to \$1 billion in 1957. The interstate roads would receive \$1.25 billion in 1958, \$1.5 billion in 1959, and \$2 billion in 1960 and in 1961.

This program of highway building, whatever its merits, will compete with schools for state and federal funds. If the federal government increases the federal gasoline tax as contemplated, a major source of state revenue

will be weakened. When state legislatures increase appropriations to match federal highway funds, they are likely to give them priority over unmatched school appropriations and weaken state aid for schools. When the federal government constructs roads it restricts its ability to aid in the construction of schools, both because of the federal debt limit and because of the practical limitations on the amounts Congress will appropriate for construction purposes.

Whither educational TV?

► In 1952 the Federal Communications Commission reserved 242 of 2053 new television channels for non-commercial educational use. Since then the reservations have been increased to 258, of which 86 are in the very high frequency band. Most of the 172 ultra high frequency channels, like their commercial counterparts, remain impracticable to operate for a variety of reasons. Among the VHF reservations, 45 are located in communities of less than 50,000 population—and 31 of these localities are not yet supporting even a single commercial station. In view of these facts, what is the record of educational TV to date and what are its future probabilities?

Members of the National Association of Radio and Television Broadcasters were asking these questions during their recent convention in Washington, even as movie and subscription TV posed more immediate problems for their commercial operations. So the pioneering Joint Committee on Educational TV, representing the seven national organizations of daring educators who had organized to ask for the educational reservations in 1950, working in collaboration with the National Citizens Committee for Educational TV, held several days of conferences with selected commercial broadcasters to discuss patterns of cooperation. (Cont. on p. 96)

HOME ECONOMICS KITCHEN

Kenwood High School, Baltimore
Formica Tops by Arrow Cabinet Co.



FORMICA — PROVING GROUNDS

Beautiful, colorful Formica has been the work surface for class after class year after year on the cabinet tops of thousands of home economics teaching kitchens.

Having earned its rugged reputation under punishment of pots and pans, Formica has long since become a part of many of the other fixtures used in education.

Today Formica provides "wear condi-

tioned" surfaces for student and teacher desks, kindergarten tables, window stools, and cafeteria tables.

Many school systems are using their own maintenance personnel to resurface scarred tops of all kinds.

Established Formica fabricators specialize in complete renovation of worn school furniture. A trained Formica representative in your area will gladly give you additional Formica information.

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Educational TV on Reserved Channels. Thus far, the challenge posed by the F.C.C. in making the reservations appears to have been well met. The central purposes were to reserve the channels until the educators could determine how to use television and to provide extra time for the construction and operation of stations. Some educators believe they have moved too slowly toward utilization since 1952; others believe they have moved too fast in relation to the growth of their knowledge about how to use television in education.

Educational stations are now operating on reserved VHF channels in Houston, Tex.; Pittsburgh; San Francisco; St. Louis; Lincoln, Neb.; Seattle; Chapel Hill, N.C.; Boston; Birmingham and Munford, Ala. Noncommercial UHF stations are broadcasting from Madison, Wis., and Cincinnati. Universities are operating educational stations under commercial licenses in Ames, Iowa; East Lansing, Mich., and Columbia, Mo.

Educational stations are being constructed to utilize VHF reservations in Chicago; Champaign-Urbana, Ill.;

Miami, Fla., and Tulsa and Oklahoma City, Okla. Detroit and Columbus, Ohio, will soon broadcast over reserved UHF channels. Construction is assured in additional cities.

Multiple Approach. The learning process for educators in television has not been confined to experience with stations of their own. Many commercial operators have assisted. Some have been more eager to induct the educators into TV than the latter have been willing to be inducted.

Willingness of educators to experiment in programming over commercial TV stations has been the indispensable factor; cooperation by commercial broadcasters has varied according to the depth and sincerity of each broadcaster's belief that TV can educate as well as entertain and sell. Other factors in cooperation are whether all station time can be sold for advertising, the extent to which the community demands noncommercial public service programs, and the effect of such programs on present or prospective competitors. In a few instances, commercial broadcasters have welcomed an educational station primarily for its potential contribution to education in the community. Occasionally, they have welcomed an education station in order to prevent establishment of a competing commercial outlet. More often, perhaps, commercial broadcasters prefer to have all stations operated commercially and to pacify the educators by making some air time available to them.

Under these circumstances, numerous school systems and colleges have gained experience in television through productions over commercial stations. Some programs have survived for years and have built up large audiences. Along with the offerings on educational stations, the influence of educational programs on commercial stations has no doubt been a factor in encouraging additional educationally acceptable programs to appear and remain on the air under commercial auspices.

Educational Responsibility. Many teachers and administrators are so busy with their "regular" work that they tend to shrug off responsibility for what happens in television. They may soon prove to have been shortsighted as television cuts more and more deeply into the educational and social influence of their "regular" work. The public may be ahead of the profession in measuring these effects; witness the



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cast iron drinking fountain

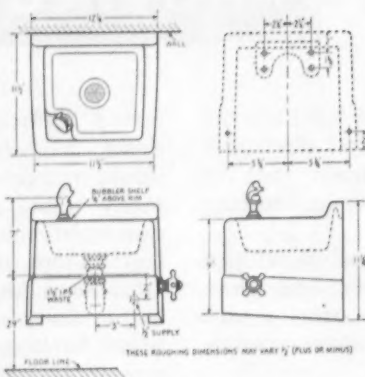
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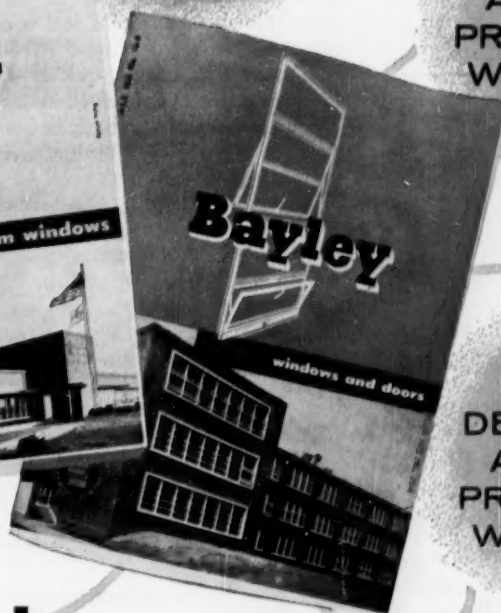
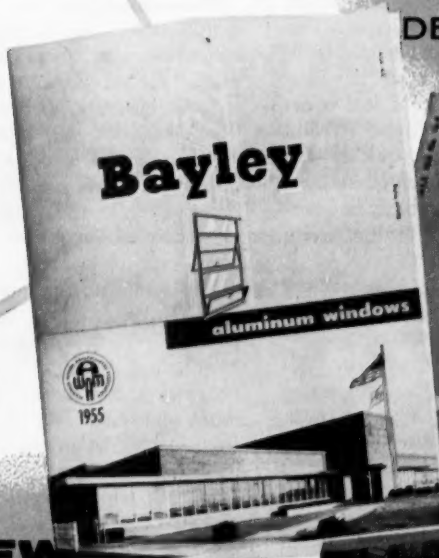
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congressional investigations of juvenile delinquency and the general concern about the effects of television on children and youth. Television is here to stay. Perhaps the best way for educators to assist in determining how it shall affect us may be to participate in it.

The Probable Future. The Fund for Adult Education has tried in several ways to assist in this extremely complex field of education. One of its most helpful services has been the establishment of the Educational Television and Radio Center at Ann Arbor to distribute suitable educational programs for noncommercial educational stations. At present the center makes available to each affiliated station five hours of "packaged" programs each week at relatively nominal cost. Any school or college may obtain programs for presentation on commercial stations at higher rates.

The N.A.R.T.B. convention exhibits in Washington made it clear that program reproduction, technical quality, and cost are improving so rapidly that many of the major impediments to educational TV may soon be overcome. One company exhibited a device that promises to provide TV film of theater film quality quickly and inexpensively. The best educational TV productions will probably be packaged and reproduced with theater film clarity in the near future.

The same company also demonstrated a new and inexpensive system of color TV. The marvels of electronics are illustrated well by this device, which must be used in a studio rather than outdoors. When it is in operation, there are 60 impulses of light per second alternating with 60 TV pictures per second taken in the dark. There is such precision that the studio appears to the human eye to be lighted all the time but is actually dark during the time when the lens of the television camera is taking pictures.

Another technical development that may help educational TV is in the field of inexpensive low-power transmitters suitable for smaller cities. No less than four companies are experimenting with these, and authorization for their use is momentarily expected from the Federal Communications Commission.

Television in Schools. In-school TV poses perhaps the greatest problems of the educational TV future. Thus far, with a few notable excep-

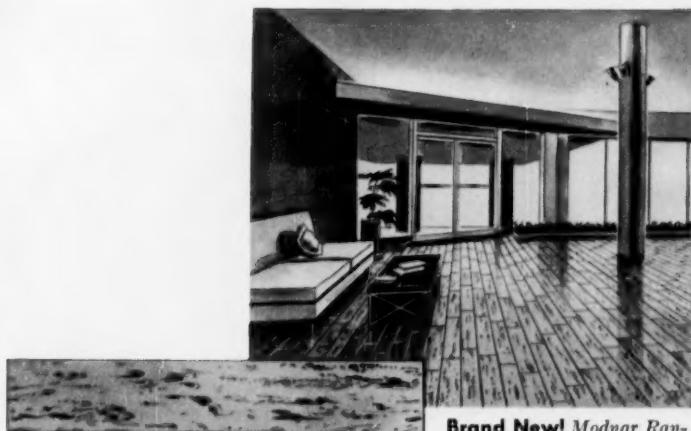
tions, educators have been merely "putting on shows." Just what teachers can use from TV in classrooms, how the TV screen can present educational programs in usable form, and how teachers can be prepared to utilize such programs raise questions that are largely unanswered. Teachers must prepare themselves to define such programs for TV production staffs, avoiding the single-shot, hit-and-miss character of broadcasts for consumption by the general public that cannot legitimately pass as education in the classroom. The sequential character of university courses for adults is easily achieved, compared with the challenge to elementary and secondary teachers to use TV in their regular classroom work.

Dubious Claims. As often happens in the development of important aspects of technology, educational TV has been seized upon by opportunists of various kinds to promote their own pet ideas.

These range from the ridiculous to the plausible. One campaigner against the whole idea of public education wants to substitute television for schools entirely. Others advertise widely that TV will replace teachers and can be an important factor in solving the shortage of teachers. These claims confuse the public and tend to undermine necessary support for education.

It is sound to experiment with and to test in practice any idea that may prove helpful to education, no matter how radical it may at first appear to be. But it is also the obligation of those who test radical ideas to refrain from making unverified claims. When unfounded claims based on an experiment are used by critics to attack education itself, both the experimenters and responsible educators everywhere have a responsibility to refute them.

There is some evidence that subject matter teaching of college students or other adults may lend itself to larger classes through use of television. There is little evidence of any kind at the high school level. What evidence there is at the elementary school level appears to indicate that here the teacher is indispensable. Television may be useful as a teaching tool to improve instruction, but the teaching process is such that the number of pupils for whom each teacher is responsible is unlikely to be affected by television.



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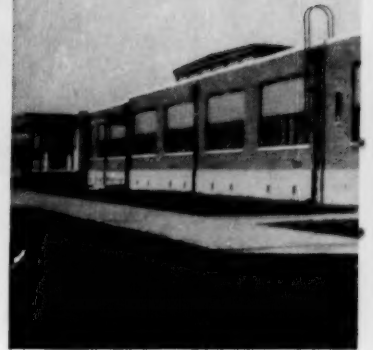
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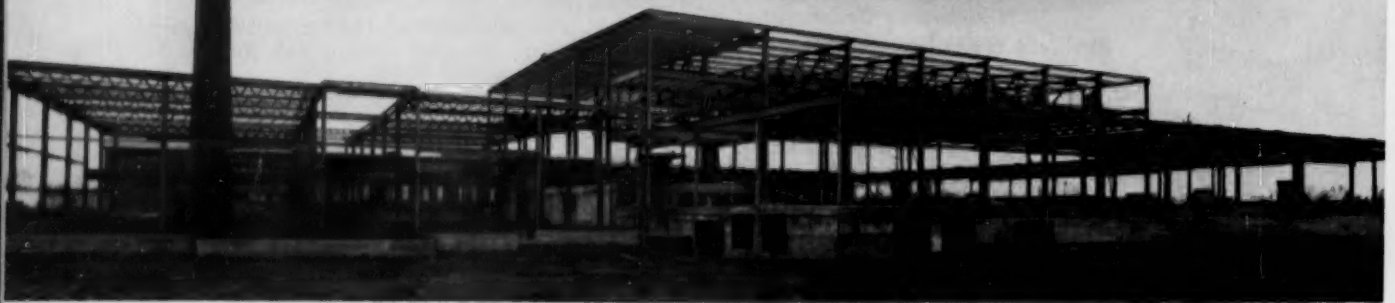
THE MAIN ENTRANCE of Assumption High School. The architects were Paul J. Saunders and Eugene S. Johnson. The engineer was John P. Nix. The general contractor was Wm H. and Nelson Cunliff Co.

TWO STORY ACADEMIC UNIT, connected to the one story unit to which a second floor may be added in the future.



New High School designed with

ENTRANCE to the gymnasium unit. The small doorway to the right leads into a classroom area.



THE STRUCTURAL FRAMEWORK during erection. The more than 348 tons of USS Structural Steel, used in the building, were fabricated by The Mississippi Valley Structural Steel Co., St. Louis, Mo.



future expansion in mind

The Assumption High School of East St. Louis, Illinois, was built to accommodate 650 students with provisions for expanding horizontally and vertically to provide facilities for an eventual one thousand students.

The school consists of three units: an academic unit containing classrooms; a gymnasium unit including gymnasium, cafeteria, shops, and laboratories; and a Brother's House, independent of the other buildings, which contains living quarters for 24 Brothers. The academic unit has provisions for expansion to the east. In addition, a second floor can be added to the present one story portion. The Gymnasium Unit is designed so that there is sufficient physical education, shop, laboratory, and cafeteria space for additional students if classroom facilities are increased.

Structural Steel was used exclusively in the framing of this new school be-

cause of its versatility, its tremendous load bearing capacity, and its economy of use—qualities that make it ideal for *all* types of school construction. Small wonder that today's architects and engineers are specifying Structural Steel frameworks for more and more schools, churches, and small buildings. Just look at these advantages:

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NEWS IN REVIEW

P.T.A. Annual Meeting Supports \$3600 Minimum Pay for New Teachers

CHICAGO.—For the first time in history a man was nominated for the presidency of the National Congress of Parents and Teachers. But he lost the election. The action took place at the 59th annual convention here May 23 to 25.

The nominee was Harry Reynolds, a former teacher from Winona, Minn. The unexpected nomination was made by Mrs. Lester Bangston of Wilmar, Minn., who told the 3000 delegates that while Mr. Reynolds was president of the Minnesota P.T.A., membership had quadrupled, male membership had increased, and "school superintendents seemed to have more respect for us."

Mrs. Bangston described Mr. Reynolds as Minnesota's "Mr. P.T.A." and "a businessman well able to leave his job to attend to P.T.A. work."

The favorite son nomination was the only one made in opposition to the nominating committee's selection of Mrs. Rollin Brown of Los Angeles, who had been first vice president. Mrs. Brown has been active in P.T.A. work for 31 years. She takes over the presidency at a time when membership is at an all-time high of 9,409,282—up 586,588 from a year ago. Mrs. Brown said she did not plan to "make any revolutions." But she will encourage more family participation in community affairs, she added.

The opening of the meeting coincided with the dedication of the association's new \$750,000 national headquarters here. The three-story building north of the Loop was financed by the membership's dimes and quarters. The largest contribution was a check for \$1000.

The convention reaffirmed a policy favoring federal aid to education with maximum state and local initiative, effort and control. The policy was emphasized by Mrs. Newton P. Leonard of Rhode Island, the retiring president, who said more than 30 state groups had approved the stand.

The organization also announced it will support a minimum wage of \$3600 for beginning teachers. And it will work for annual increases to a top minimum of \$8500 a year for experi-

enced teachers. Formerly the group supported only a \$2400 minimum salary for beginning teachers.

At one of the sessions, H. I. Willett, president of the American Association of School Administrators, warned against keeping the public in the dark about school matters. "There is a definite relationship between public confidence in the schools and financial support for them," Mr. Willett said.

Harold E. Stassen, director of the Foreign Operations Administration, called upon the P.T.A. to play a leading rôle in the promotion of world peace.

All 48 States to Attend White House Conference

WASHINGTON, D.C.—The White House Conference on Education expects 100 per cent participation of the 53 states and territories invited to attend the meeting here from Nov. 28 to

Dec. 1. Chairman Neil H. McElroy said Georgia's recent announcement that it would hold a cooperating conference completed the list. Some 2000 educators are expected at the meeting.

Houston Board Meetings Televised; Seen by 100,000

HOUSTON, TEX.—KUHT, the educational television station here, has been telecasting board meetings of the Houston Independent School District to an enthusiastic local audience, reports a station representative. Surveys show the audience numbers 100,000.

The school board telecasts are live shows direct from the meetings with none of the proceedings deleted from the program. KUHT stated that the last program ran for four and one-half hours beginning at 7:30 p.m. When the series was started one board meeting a month was telecast. Since then the number of broadcasts has been increased because of popular demand, it was explained.

"Teacher of the Year" Meets President Eisenhower

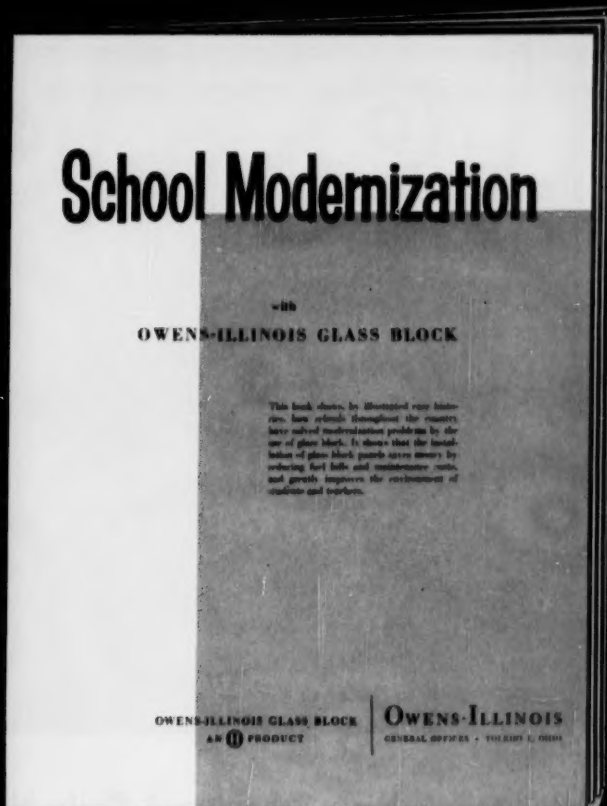


Shown here with President Eisenhower at the White House are Margaret Petty, fourth grade teacher of Monmouth, Ore., the "Teacher of the Year"; Sue Mull and Dick Peterson, two of Miss Petty's pupils from Monmouth; Edgar Fuller, executive secretary of the Council of Chief School Officers (left) and Samuel M. Brownell, U.S. commissioner of education (right). The Teacher of the Year was chosen through the cooperation of the Office of Education, Council of Chief State School Officers, and McCall's Magazine.

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NEWS



Saginaw News Photo

Hometown High School and Daily Newspaper Honor Editor of The Nation's Schools

SAGINAW, MICH.—Arthur H. Rice (seated), editor of *The NATION'S SCHOOLS*, reminisces with old friends in Saginaw, Mich., where on May 26 he was named as Arthur Hill High School's fifth Honor Alumnus. At the left is Otto C. Pressprich, editor of the *Saginaw News* and fellow employe of the *Saginaw News Courier* when Dr. Rice was a reporter there. Standing at the right are Arthur R. Treanor, editor and manager of the *News Courier* during Dr. Rice's tenure as reporter, and Chester F. Miller, Saginaw's school superintendent and a member of the advisory board of *The NATION'S SCHOOLS*.

Dr. Rice, a native Saginawian, who was graduated from Arthur Hill High School in 1918, was introduced at the honors assembly by Mary Wilcox, a student in her junior year. Theme of his acceptance speech was that youth should learn from the mistakes of its elders. The school held a dinner in Dr. Rice's honor the preceding night and a reception for him after the ceremony. A photographic portrait of him was placed with those of the other four Honor Alumni in the school.

Concluding tribute in the speech introducing Dr. Rice as Honor Alum-

nus was: "For his inspirational leadership as a nationally recognized educational editor, for his great enthusiasm and influence in helping our schools to serve the child and the community more effectively, for his creative thinking and constructive guidance and vision in a world of conflicting philosophies, Arthur Hill High School is proud to name Dr. Arthur Henry Rice as our fifth Honor Alumnus."

The *Saginaw News*, successors of the *News Courier*, praised Dr. Rice editorially. Of Arthur Hill's choice of him as fifth Honor Alumnus, it said: "This is an honor which, we believe, Dr. Rice will especially cherish. It is an honor he has abundantly earned. We feel we share with Arthur Hill the privilege of claiming him as a distinguished alumnus."

Research for the Honor Alumnus award is done by Arthur Hill students in Quill and Scroll, national honorary for high school journalists. Four of these students, accompanied by their teacher, Mattie G. Crump, interviewed Dr. Rice at his office in Chicago and his home in Wilmette. Selection of the alumnus to be honored is made by the school faculty and administrators.—Audrey R. Llewellyn.

\$3 Million for Bungalows to Cut Classroom Shortage

LOS ANGELES. — The city has ordered a \$3 million emergency bungalow classroom building program to take 23,800 pupils off half-day school sessions by next September.

Supt. Claude L. Reeves announced that contracts were being let immediately following approval by voters of a \$133 million school bond issue.

A total of 341 completely equipped classrooms—292 of them at 70 elementary schools and 49 at junior and senior high schools—will be erected during the summer, according to Virgil Volla, school housing supervisor.

The bulk of the emergency construction will be in the mushrooming San Fernando Valley, with 45 of the bungalows to be added to three junior high schools, all built within the last year, Mr. Reeves said.

Nearly 50,000 Los Angeles district pupils are on short schedules despite a massive building program through which 1309 classrooms have been constructed since September 1952—facilities for nearly 50,000, the superintendent pointed out.

Voters approved a \$75 million bond measure in 1946; they passed a \$150 million issue in 1952, and supported the new \$133 million bond issue in a recent election, he said.

But, fast as schools have been built in Los Angeles, they have not kept pace with enrollment, which has increased at a rate of from 25,000 to 35,000 pupils a year and will top half a million by next September, Mr. Reeves explained.

Education Loses Friend on Communications Commission

WASHINGTON, D.C. — President Eisenhower did not reappoint to the Federal Communications Commission the woman who is chiefly responsible for the reserving of 257 TV channels for education. She is Frieda Hennock, a New York lawyer, and the first woman ever appointed to the commission. Although a Democrat, her appointment to the commission in 1948 was endorsed by the late Sen. Robert A. Taft (R-Ohio), who supported her campaign on behalf of educational television and the small radio-TV stations. Succeeding her on the commission for a seven-year term, starting July 1, is Richard Mack, a Florida utilities commissioner.



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NEWS

Parents of Teen-Agers Get Help From N.E.A.

WASHINGTON, D.C. — "It's High Time" is a new booklet for parents of teen-agers published by the National Education Association. The pamphlet is written for parents to help their youngsters achieve a smooth transition from elementary or junior high school into the world of high school.

The family council is suggested as a way of meeting family problems and differences so that all members of the

family will feel that they have had a part in formulating the decisions which have been made. Several other technics are suggested.

The universal teen-age problems of how they grow, their fads, family rules for curfew, use of the car, dating, and home chores are covered. The pamphlet also discusses matters related directly to entrance into high school, courses of study, choosing a vocation, establishing good study habits, making friends, picking extraclass activities, and extra expenses.

Tests Show Eighth Graders Months Ahead of 1933 Pupils

EVANSTON, ILL. — Eighth grade pupils in the schools here are learning their reading, spelling and arithmetic as well as or better than their predecessors did 20 years ago, according to tests conducted by Wendell C. Lanton of the research department of the Evanston schools. Last year Dr. Lanton conducted a similar study among third and fifth grade pupils in the Evanston schools with results favorable to present-day teaching.

The tests were the same ones that had been given in 1933. And an attempt was made to duplicate the testing conditions as closely as possible.

Results showed that in composite achievement today's eighth graders ranked four months ahead of their 1933 counterparts. In reading comprehension and vocabulary, the current eighth grade pupils were five months ahead of the same groups tested in 1933. The two groups scored about even in arithmetic computation, but today's eighth graders were farther ahead in arithmetic reasoning. In spelling the present-day eighth graders showed themselves about three months ahead of their predecessors.

Dr. Lanton pointed out that the pupils who took the tests this year were significantly younger than those in 1933. There was some indication that intelligence test scores for the same groups were higher today than 22 years ago, he added.

Many objectives of the school, said Dr. Oscar M. Chute, superintendent of elementary and junior high schools in Evanston, are not measurable by tests. These include citizenship, character and many intangibles of human personality that need to be taken into consideration in an appraisal of a school system.

New Jersey Official Halts "Unofficial" Segregation

ENGLEWOOD, N.J. — State Commissioner of Education Frederick M. Raubinger has ordered school officials here to end discrimination against Negro pupils. The commissioner charged that recently redrawn school districts were designed to segregate Negro children in violation of the state law. He gave the local board six weeks to change the boundaries of two of the schools.

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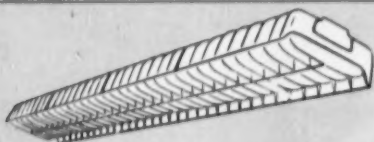
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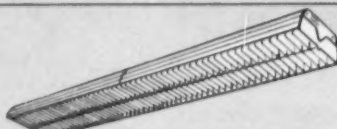
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I.C. Low-Brightness Line—Low brightness with 45° crosswise shielding. Ideal for easy maintenance, easy lamp replacement. Available with metal, plastic or aluminum side panels.



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Troffers—Recessed lighting with seven different types of shielding media—flat or curved alabaster, 45° x 45° metal shield, dished plastic, low brightness lens, twin-lite or curved lens.



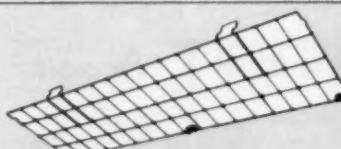
Corridor Light—This trim, good-looking fixture can be mounted anywhere, in any position, for general illumination in corridors.



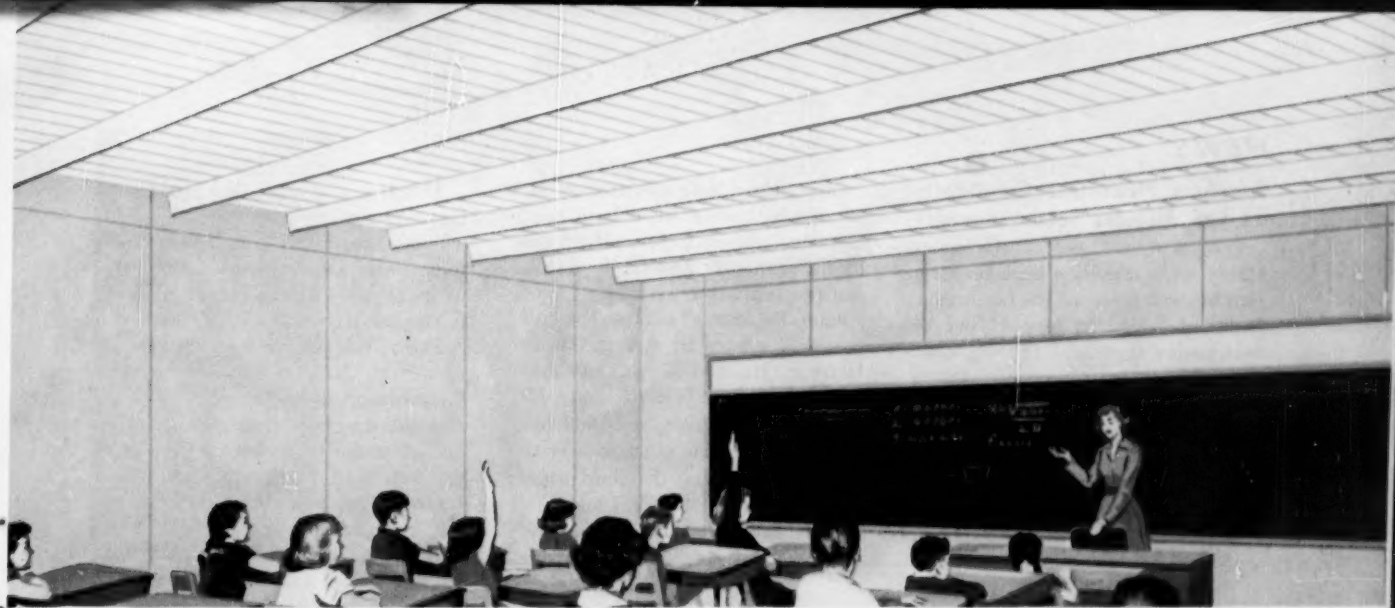
Chalkboard Light—Low-cost, single-lamp unit can be mounted above chalkboard in continuous row for supplementary lighting. Available in 4' and 8' lengths.



Shop Light—Rugged industrial-type fixture—proved in factories across the nation—directs a maximum of light on work surfaces.



Gymnasium Light—For high-ceiling areas, install NTC fixtures with wire guard for protection of lamps.



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AN ARCHITECT OR a lighting engineer can only compound the most effective lighting "prescription" for your school if he has a complete selection of better-quality fixtures to choose from.

Look over the complete Sylvania line of school lighting fixtures on the page opposite. Whatever your lighting problem—ceiling height, room size, type of room, available natural light, or budget—there's a Sylvania fixture to meet every need, both in new and existing buildings.

With the Sylvania line, you know that every fixture will stay "modern" for years to come... your assurance of making the best illumination investment possible. You'll be buying long fixture life, latest

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Questions? Call on the Sylvania lighting specialist in your area for a consultation or a group meeting at any time. He is a qualified expert on all phases of school lighting.

Meanwhile, send the coupon below for our latest informative booklet, "Some Whys and Hows of Modern School Lighting." It is a helpful, complete, easy-to-understand discussion of school lighting.



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NEWS

Teachers Place One Candidate on Los Angeles School Board

LOS ANGELES.—Mrs. Georgiana Hardy, 44, a television book reviewer-lecturer, won a seat on the Los Angeles Board of Education May 31 but her two teacher supported running mates were defeated by conservative incumbents.

This marked the first time in city history that the teachers—through their 13,000 member Affiliated Teacher Organizations of Los Angeles—had openly backed a school board political slate.

Mrs. Hardy, wife of Attorney Jack W. Hardy, once a Republican candidate for Congress from southern California, won over Donald B. Pugh, a marine contractor, polling 173,076 votes to the loser's 149,608. The board post was vacated by Arthur Gardner. Harry H. Hillman, 47, incumbent, defeated Contractor Emery S. Petty, Mrs. Hardy's running mate, by 28,000 votes. Earl Carpenter, the other conservative incumbent, downed the third teacher slate member, Attorney Laurence B. Martin, in the April primary election.

This was a tempestuous name-calling campaign, even for Los Angeles, where school board politics have become bitter and controversial enough to make news throughout the nation in the last six years.

Press releases from the Hillman-Pugh-Carpenter headquarters, representing business interests and nicknamed by opponents as the "chamber of commerce" slate, charged the teachers were trying to seize board control. They pointed to the fact that the board determines teacher salary policies and criticized A.T.O.L.A. for entering the campaign.

They branded the Hardy-Petty slate as "pro-UNESCO" and charged that "left-wing ideologists and special pressure groups are making a concerted effort to dominate our way of life through the educational system."

Mrs. Hardy and Mr. Petty, campaigning without support from any of the city's newspapers, made numerous public appearances blasting the board's "penny-pinching" tax policies and "book banning interference" in the educational program of the schools.

They charged the incumbent board, dominated by "cut taxes" interests, was neglecting school health and needed junior college expansion and was usurping administrative authority.

Mrs. Hardy and Mr. Petty have filed \$150,000 libel suits against the Los Angeles chapter of Pro America, charging an election pamphlet falsely implied they were linked to a Communist plot. Both declared they would press the suits through to conclusion following the election.

Family Aspects Found Top Factors in Causing Delinquency

NEW YORK.—A new test is being used in two schools in the Bronx to determine potential delinquents at an early age and to help them while they are still young. The test is based on a study made over a period of 10 years by Eleanor and Sheldon Glueck, sociologists at Harvard University.

The test shows that a potential juvenile delinquent can be identified by the time he is 5 years old. According to the study, aspects of family life influence possible delinquency. These factors are the degree of discipline by the father, supervision by the mother, love of the father, love of the mother, and the cohesiveness of the family.

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Tuf-flex is three to five times stronger than regular plate glass. In fact, a ½-lb. steel ball, dropped ten feet on a piece of ¼"-thick *Tuf-flex*, bounces right off. Quarter-inch *Tuf-flex* is made of L·O·F *twin-ground* Parallel-O-Plate Glass, the clearest, finest, most distortion-free plate glass made in America.

For complete information, contact your L·O·F Distributor, or write to Libbey-Owens-Ford Glass Company, 608 Madison Avenue, Toledo 3, Ohio.

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use
hourly correction?**



When you go on your summer vacation you want to have your car in top shape... you make sure the tires are good, that the car has been properly lubricated. But you don't insist that your service station fill your radiator with anti-freeze... you don't need it.

And that is why Edwards doesn't use hourly correction... you don't need it.

Edwards has built many thousands of clock systems... many of them installed in very famous buildings. Engineers report, from their experience in the field, that these Telechron® motored clocks are the most dependable, most accurate electric clocks commercially available today. Their field work has shown them that without any special electronic controls, without any hourly corrections, Edwards clocks never get out of step with each other.

You see, the rotor, or heart, of the Telechron motor is a very light weight, high speed part. In fact, it weighs only 1/6th of an ounce and turns

at 3600 rpm. Now, if the power should fail, these motors all stop immediately due to their light weight, and as a result of the necessary gearing there is no recognizable difference between the hands on each clock. And of course, since they are all running from the ever accurate 60 cycle current supplied from the well regulated central power station there can be no difference between clocks while operating.

There are other advantages to not having hourly correction, that will mean dollars and cents to your clients. Since there is no master clock required, you save expensive maintenance, maintenance which over 10 years often costs more than the clock system. Also, your clocks are accurate all the time, not just during the minutes of correction, as in other types of systems.

If you require an easy to operate, accurate clock system for your next hospital or school, call in your Edwards man... or write to Dept. NS-7 for further information.



Synchromatic Clock Systems



EDWARDS Company, Inc., Norwalk, Conn.
In Canada, Owen Sound, Ontario

NEWS

Appoint Seven Consultants for White House Conference

WASHINGTON, D.C. — Seven educators have been appointed as consultants to committees of the White House Conference on Education, announced Neil H. McElroy, chairman of the conference.

Francis Keppel, dean of the graduate school of education at Harvard University, will serve with the conference subcommittee on "What Should Our Schools Accomplish?"

Paul J. Misner, superintendent of schools, Glencoe, Ill., and president-elect of the American Association of School Administrators, and Morris S. Wallace, head of the department of educational administration, Oklahoma A & M College, Stillwater, have been named to the subcommittee on "How Can We Obtain a Continuing Public Interest in Education?"

Ray C. Maul, assistant director, research division, National Education Association, Washington, D.C., is with the subcommittee on "How Can We Get Enough Good Teachers — and Keep Them?"

Edgar L. Morphet, professor of education, University of California, is a member of the subcommittee on "How Can We Finance Our Schools—Build and Operate Them?"

Howard A. Dawson, director of rural service, National Education Association, has been named to the subcommittee on "In What Ways Can We Organize Our School Systems More Efficiently?"

William Ray Flesher, professor of education, Ohio State University, Columbus, and president of the National Council on Schoolhouse Construction, has been appointed to the subcommittee on "What Are Our School Building Needs?"

Driver Education Graduates Get Lower Insurance Rates

WASHINGTON, D.C.—High school students who have completed driver education courses will be entitled to a 10 per cent reduction in insurance rates on their cars, the National Bureau of Casualty Underwriters announced recently. The ruling, the bureau stated, is effective in 39 states and the District of Columbia.

The bureau has accepted the recommended N.E.A. standards for driver education as the basis for the new in-

surance policy. The plan indicates that preferred rates will be allowed for graduates of programs where the state department of education certifies that at least 30 hours of classroom instruction and six hours of practice driving instruction are given.

According to N.E.A. figures, the driver education programs in high schools have helped to bring about a decrease in the number of deaths resulting from automobile accidents.

COMING EVENTS

JULY

3-8. National Education Association, 93d annual convention, Chicago.

6. A.A.S.A. breakfast at N.E.A. convention, Conrad Hilton Hotel, 8 a.m.

4-7. National School Public Relations Association, annual meeting, Chicago.

5. Educational Press Association of America, annual convention, Chicago.

7. National School Public Relations Association, annual meeting, Chicago.

11-22. Department of Classroom Teachers, N.E.A., national conference, West Lafayette, Ind.

21-24. Educational Film Library Association, national conference, Chicago.

24-27. National Audio-Visual Association, convention and trade show, Chicago.

AUGUST

21-27. National Conference of Professors of Educational Administration, University of Connecticut, Storrs.

OCTOBER

9-12. County and Rural Area Superintendents, annual conference, San Diego, Calif.

16-20. Association of School Business Officials, annual convention, Chicago.

17-21. National Safety Council, 43d congress and exposition, Chicago.

24. United Nations Day.

NOVEMBER

6-12. American Education Week.

24-26. National Council for the Social Studies, annual convention, New York.

28-Dec. 1. White House Conference on Education, Washington, D.C.

FEBRUARY

18-23. American Association of School Administrators, Atlantic City, N.J.

24-29. National Association of Secondary-School Principals, annual convention, Chicago.

MARCH

24-30. American Association for Health, Physical Education and Recreation, national convention, Chicago.

APRIL

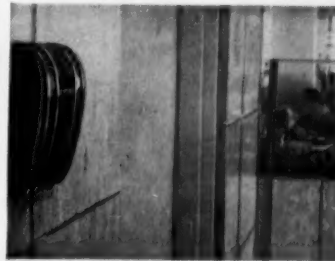
5-7. Southeastern Association of School Business Officials, fifth annual convention, Louisville, Ky.

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America's schools run more smoothly
... America's school children are
better protected thanks to Edwards.



Edwards clock and program systems provide an accurate, simple and flexible means of programming activities of large groups in schools, institutions, offices and industrial plants. A program instrument is used having as many circuits as there are different programs. Standard sizes contain 1, 2, 4, or 6 circuits. Signals may be sounded any minute, 24 hours a day, 7 days a week. With a signal control panel it is possible to change program or signal schedule in any room or location to another program without disturbing the overall program setting or wiring. The Edwards program instrument is powered by the same heavy duty Telechron motored movement used in the clock systems.



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NEWS

Herold Hunt Heads Committee to Evaluate C.P.E.A. Research

WASHINGTON, D.C. — Herold C. Hunt, Eliot professor of education at Harvard University, has been named chairman of the committee of 19 that will guide the two-year evaluation project for the Cooperative Program in Educational Administration. Dr. Hunt is a former president of the A.A.S.A. and has been chairman of its developmental committee since its formation seven years ago. At that

time he was general superintendent of Chicago public schools.

The other members of the C.P.E.A. committee, as announced by Worth McClure, executive secretary of the A.A.S.A., are: the president, president-elect, and executive secretary of the A.A.S.A. as ex-officio members; a representative for each of the eight C.P.E.A. regional centers; Supt. Lawrence G. Derthick, Chattanooga, Tenn.; Supt. Clyde Parker, Cedar Rapids, Iowa, representing the A.A.S.A. execu-

tive committee; State Commissioner Finis E. Engleman, Hartford, Conn., representing the Council of Chief State School Officers; Harold E. Moore, University of Denver, representing the National Conference of Professors of Educational Administration; Mrs. Catharine Mulberry, Chicago school board member, representing the National School Boards Association, and Sampson G. Smith, superintendent, Somerset County schools, Somerville, N.J., representing the N.E.A. Department of County and Rural Area Superintendents.

Hollis A. Moore Jr., former associate editor of *The Nation's Schools*, assumed duties June 1 as executive secretary of the committee, with headquarters in Washington, D.C.

High school cuts towel costs 40% with Mosinee



A high school* in a large Wisconsin city conducted a four-month trial with Mosinee Turn-Towls. Final figures showed that Turn-Towls' higher absorbency plus controlled dispensing with Turn-Towel cabinets resulted in:

1. 40% reduction in the number of towels used compared with previous service.
2. A great reduction in the amount of wasted towels to be handled.
3. A substantial saving in labor needed to service cabinets.
4. Students and staff were pleased with the new service.

Mosinee Turn-Towls can give you these savings, too, and at the same time, improve your service. Write us for the name of your nearest Mosinee Towel Distributor.

*Name on request



Commercial TV Too Expensive for Schools, Executive Says

LOUISVILLE, KY.—Commercial television may never be adopted as a means of mass education, stated Victor A. Sholis, vice president and director of WHAS-WHAS-TV, at a recent meeting of the Education Writers Association here.

He suggested that closed circuit television systems such as are at present in use in the Chicago public schools will be the eventual solution to the use of television by schools. For a limited audience the closed circuit system is less expensive and more practical, he said.

Commenting further on school news reporting, Mr. Sholis stated that commercial radio and TV stations are anxious to report school news. However, most of these stations do not have a large enough staff to allow one man to specialize in school reporting, he said.

Wins Fight to Be Named Michigan State University

EAST LANSING, MICH. — Michigan State College, now one hundred years old, is to become Michigan State University. The full name of the Michigan State College of Agriculture and Applied Science will read Michigan State University of Agriculture and Applied Science.

The legislative act effecting the change in name was signed by Philip A. Hart, lieutenant governor of Michigan, acting in the absence of Gov. Mennen Williams, at the time on a trip to the Near East.

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During the past five years, architects have specified WASCOLITE SKYDOMES for more than 8,000 schools. The Architects Collaborative, for example, have specified SKYDOMES for 16 New England schools — since they have found no other method of overhead daylighting to be as efficient and trouble-free. Write today for free booklet "Daylighting Your Schools".

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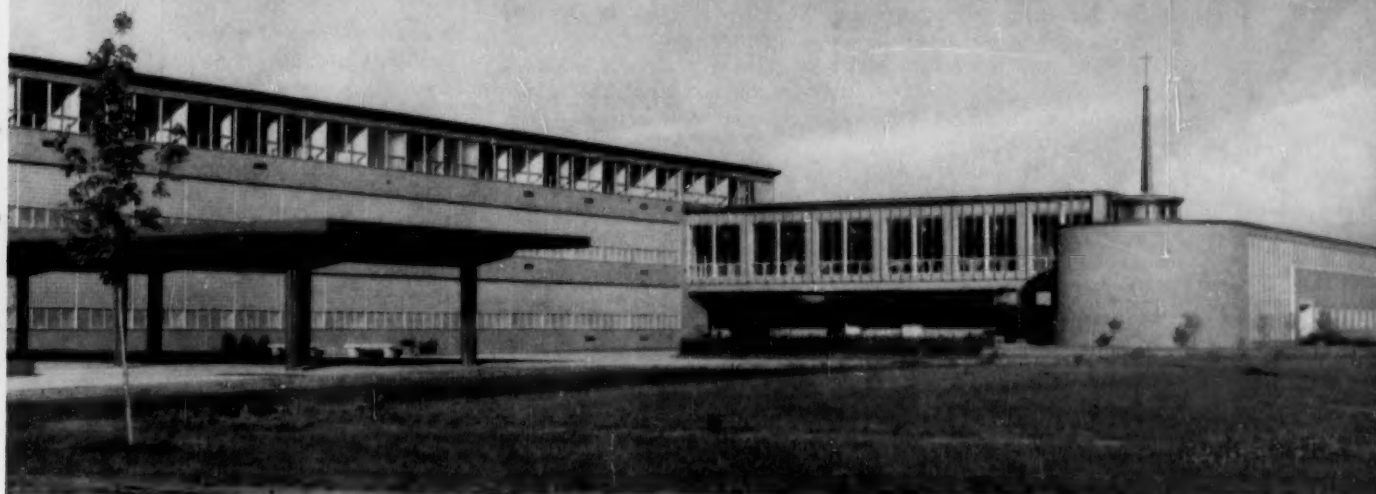
James L. Mulcahey School, Taunton, Mass. Architects: The Architects Collaborative, Cambridge, Mass.



how a school
 was designed at savings
 of 31% in floor system costs

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 STEEL**

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Bishop DuBourg High School—St. Louis, Missouri
Architects: Murphy & Mackey/Structural Engineer: Neal J. Campbell
Contractor: C. Rallo Contracting Company, Inc.

Ceco-Meyer Removable Steelform Construction proves more economical than solid slab or tile filler in study made for Bishop DuBourg High School in St. Louis. When a school is designed around a program planned jointly by architects and educators, it is possible to cut costs and at the same time satisfy functional and psychological needs. So goes the story of Bishop DuBourg High School. Architects Murphy & Mackey asked the school administrators to outline physical requirements and spiritual essentials. On the basis of that data, they created a pupil-centered school with a warm, human atmosphere instead of an institutional feeling. The building is four stories high, with each floor a one-grade school in itself . . . classes stacked one above the other. Common facilities, including library, shop and gymnasium, are tied in so students can reach them without walking through corridors used by other grades. With layout settled, methods of construction then got a critical eye. Floor systems studied were (1) solid slab and (2) concrete joist construction formed with (A) tile filler and (B) removable steelforms. Ceco-Meyer Removable Steelforms were selected on the basis of 31% savings in cost over solid slab and 27% over tile filler. Reasons for savings: less forming lumber, concrete, steel and labor than solid slab; less material cost than tile filler. Also the Ceco method was deemed the most practical and fastest for rigid fire-safe construction. So on your next building project consult Ceco Engineers in the pre-planning stage. Chances are they can help you on advance programming so savings can be made in time, material and labor.

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Underside view of concrete joists formed with Ceco-Meyer Removable Flange-Type Steelforms, showing tie-wires for ceiling attachment.

Ceco Reinforcing Steel was fabricated in accordance with design drawings. Delivery was made to the job site as required by the contractor's construction schedule, thus saving double handling on the job.

View of Ceco-Meyer Steelforms in place, ready for placement of reinforcing steel.



NEWS

Newspapermen to Study Education News Problems

CAMBRIDGE, MASS.—School administrators and newspaper representatives from 10 cities will participate in a three-week conference on educational reporting at Harvard University here July 25 to August 13. The conference is sponsored by the Nieman Foundation at Harvard and by a grant from the Fund for the Advancement of Education.

Participants will study and plan the

job of telling the story of education to their own communities. Background talks by educators and newspaper editors will touch on effective means of reporting education.

The education talks will deal with problems of school financing, the increase in pupils, teacher shortage, curriculum needs, community relations, and segregation. Newspaper background talks will consider means to make information accessible for adequate reporting on education.

The participating school systems are Denver; Portland, Ore.; Toledo, Ohio; Nashville, Tenn.; Houston, Tex.; Louisville, Ky.; Providence, R. I.; Worcester, Mass.; Corning, N.Y., and Bay City, Mich. Leading newspapers from the same cities will send staff members to the conference.

Education Professors Earn \$3000 to \$12,000, Survey Shows

KEENE, N.H. — Salaries for professors in colleges of teacher education range from a low of \$3000 to a high of \$12,000, reported Lloyd P. Young of Keene Teachers College here. Mr. Young directed an annual survey of salary schedules among 206 colleges that are members of the American Association of Colleges for Teacher Education.

In the majority of colleges, the survey revealed, salaries were clustered around a median point somewhere between the high and low figures. The average salary as professor is \$6100; associate professor, \$5500; assistant professor, \$4800, and instructor, \$4000.

"There are numerous variable factors," Mr. Young explained, "which cannot be indicated in a report, such as variation in qualifications of a professor and the financial resources of different institutions."

According to the tabulation, two important factors were the size of the school and the section of the country in which it was located.

The majority of the schedules were for the college year of nine or 10 months. Schedules reported on a 12 month basis usually indicated that staff members were not expected to teach in the summer session, or were allowed a quarter's leave every second or third year.

National Farmers Union to Study Rural Education

WASHINGTON, D.C.—The National Farmers Union has decided to study the crucial problems of school financing facing farm communities. The decision was reached at the first meeting of the organization's newly created Commission on School Support in Rural Areas here May 26 and 27. Dr. James G. Patton, president of the union, said "an economic crisis has been reached in many rural communities because of the greatly increased tax load needed to finance schools."

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Visual acuity improved with Luvex-U school lighting

A recent survey* of college health programs—with special reference to eye health—revealed that 21% of 1,000 students tested showed a decrease in visual acuity during their college years.

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Remember: Glasses can correct faulty vision, but they can't correct faulty lighting. That's why school officials find it profitable to SEE, EXAMINE and COMPARE—to look at the fixtures, not just the pictures.

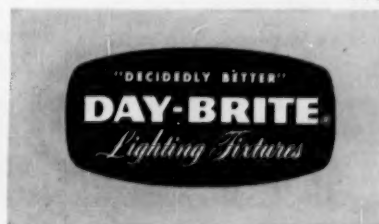
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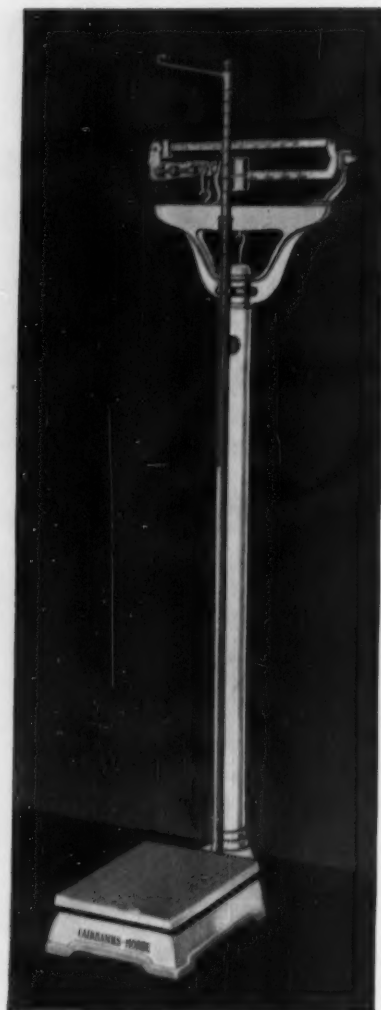
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SERVICE EQUIPMENT • FARM MACHINERY • MAGNETOS

NEWS

N.C.C.J. Sponsors 14th Year of Human Relations Workshops

NEW YORK.—Workshops in human relations and intergroup relations have been announced for the summer of 1955 by the National Conference of Christians and Jews. The N.C.C.J. has arranged for 36 workshops which will be given at various colleges and universities throughout the country.

Evaluation of past seminars (held since 1941) has proved that the workshops have made a major contribution to the improvement of group relations in America, said Herbert L. Seamans, director of the commission on educational organizations. Last year 1006 educators and community leaders enrolled in 28 summer workshops.

Richmond Survey Shows Teachers Take Outside Jobs

RICHMOND, VA.—A teacher's income often has to come from more than one source. The League of Richmond Teachers found that about 12 per cent of its members hold regular part-time jobs to supplement their teaching salaries.

When the number of those who take summer jobs is added, the total number of teachers who supplement their income with outside jobs rises to 28 per cent of league membership, the league reported. About one-third of the teachers surveyed said that they support at least one person in addition to themselves.

Audio-Visual Convention to Feature Films; No Speeches

EVANSTON, ILL. — There will be no speeches at the 1955 meeting of the National Audio-Visual Association here July 22 to 27. Instead, members will sit down at desks to watch slides, overhead transparencies, and displays. Business sessions will discuss means of serving schools with audio-visual devices, including entertainment films, Alan Twyman, association president, announced.

Seagers Speaks in Zurich

ZURICH, SWITZERLAND.—Paul W. Seagers, professor of education and school building planning consultant at Indiana University, was chief spokesman on school lighting for the United States delegates at the conference of the International Illumination Engineering Commission. The commission held its conference here last month.



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AN INVISIBLE RAINCOAT now protects this warehouse and office building. The above-grade masonry water repellents made with *Linde* Silicones apply easily by low-pressure spray or (inset) by brush.



SO EASY—yet it does so much more!

Just a low-pressure spray application—or simple flushing on with a brush.

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As soon as it dries it is colorless. It leaves no shine. It stops rain from penetrating even when driven on 100-mile-an-hour winds. Since it puts a water-shedding surface on masonry, concrete and brick, dirt washes right down to the ground.

It lines yet it does not seal up the pores, so moisture

entrapped before treatment can evaporate. Thus spalling and cracking due to freezing are halted. Efflorescence, too, is prevented.

INSIDE

The benefits really multiply. Plaster, woodwork, paint and wallpaper stay dry. Peeling and staining due to moisture penetration are banished. Decorating, maintenance and repair costs drop.

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NEWS

N.E.A. Survey Predicts Growing Teacher Shortage

WASHINGTON, D.C.—A survey by the National Education Association shows that only 65.8 per cent of the 1954 education graduates actually went into teaching. The N.E.A. report further predicts only 27,800 of the 35,278 elementary school majors in the class of 1955 will enter the classroom. High schools will do worse, with only about half of the 51,418 graduates trained in secondary education becoming teach-

ers. An estimated 60,000 elementary teachers leave the classroom each year, the survey revealed.

Princeton Study Favors Public School Graduates

PRINCETON, N.J. — A study of Princeton students has shown that public high school graduates do better at the university here than do students from private schools.

A recent study by the counseling service found that 244 public high

school graduates earned higher grades on the average than did 398 private school graduates. A scholastic aptitude test measuring ability was taken into account in the comparisons.

The findings of the counseling service contradict the position taken in January of 1954 by Princeton president, Harold W. Dobbs, writing in the *American Magazine*. Said President Dobbs, "With few exceptions, public high school graduates come to us not so adequately prepared academically as boys from most private schools." Dr. Dobbs went on to advise parents who have gifted children to consider strongly sending them to a private secondary school. President Dobbs accused public schools of "a watered down quality of basic learning."

C. C. Trillingham Heads Yearbook on Instruction

WASHINGTON, D.C. — C. C. Trillingham, superintendent for Los Angeles County, Los Angeles, has been appointed to head the committee for the preparation of the 1957 yearbook of the American Association of School Administrators. The volume will be devoted to the general theme of the superintendent's rôle in improving instruction.

Other commission members include: Stephen M. Corey, Teachers College, Columbia University; Johnnie V. Cox, director of the Georgia Program for the Education of Supervisors; W. W. Eshelman, supervising principal, Upper Dublin School District, Fort Washington, Pa.; Philip H. Falk, superintendent at Madison, Wis.; Robert S. Fox, principal of the university elementary school, University of Michigan; Ernest Horn of the State University of Iowa; T. J. Jenson, superintendent at Shorewood, Wis., and Dean M. Schweickhard, Minnesota state commissioner of education.

Louisville Executive Named Head of Education Committee

WASHINGTON, D.C. — Thomas A. Ballantine, president of the Louisville Taxicab & Transfer Company, Louisville, Ky., has been appointed chairman of the education committee of the Chamber of Commerce of the United States. Mr. Ballantine, a chamber of commerce director, has been a member of the education committee for three years.

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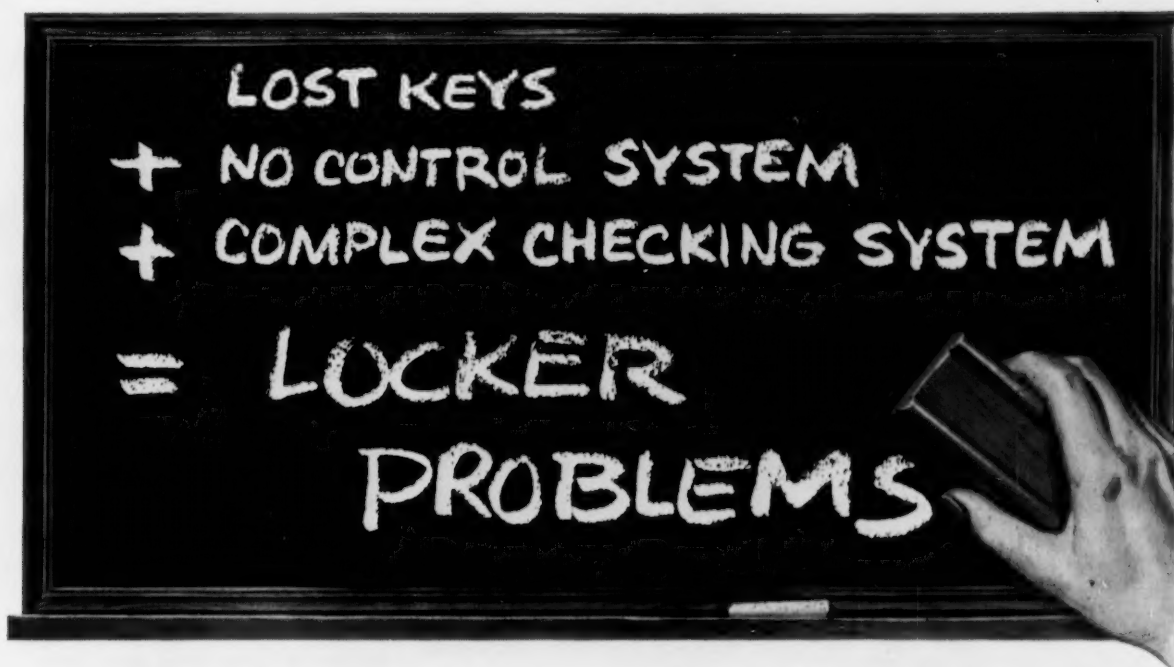
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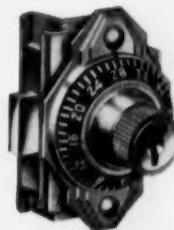
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**John Guy Fowlkes
Describes Easter in India**

(Continued From Page 10)

long, bright red beard; he was dressed in a white cotton robe. He read scriptures from the Old Testament about the Lord ordering the people of the Far East to slaughter a sacrificial goat and eat it before sunrise. The sermon was dully read; so were the prayers. It was the Old Testament's concept of God. We felt that we should be afraid of Him instead of remembering the New Testament's idea of a loving, kind, forgiving and merciful God.

When we started to drive home, we were first blocked by three camels which were crossing the street—then, of course, the usual countless bicycles, and ox carts galore. The men on the street have slim brown bodies draped in dirty, gray-white dhotis and topped by bright, gorgeous turbans—orange, raspberry and lime; the women saunter sensuously along in flowing chiffon saris with diamonds in their noses. Two miles and we are in New Delhi, which is like home—big wide streets, beautiful trees, and lawns and homes. As we drove in our own gate, we saw two monkeys playing in the front yard.



On the grounds of the Lakshinaratan Temple (Birla Temple) in New Delhi, India, the followers of different faiths derived from Hinduism, Sikhs, Jains and Buddhists have their own shrines before which they worship. The temple is enclosed by a 15 foot stone wall. Inside the wall are many gardens, fountains and marble statues.

The Indian villages are the most unbelievable of all. There are hundreds of small mud huts built together

in rows that wind in and out like a snake. There is no electricity and only one well for water for all purposes: drinking, bathing, cooking. Can you imagine 20,000 people and their livestock living in such close proximity in 110° weather and in utter blackness from sundown to sunrise except for an occasional kerosene lamp? The women in these villages are adorned with toe rings, anklets, bracelets, earrings and nose rings. They are extremely modest and cover their faces, but their bare midriffs (and sometimes more) are always showing.

There are 558,000 of these villages in India. It's inspiring and heartening to know that Community Development Projects, calling for D.D.T. spraying of all quarters, the modernization and purification of wells, the development of small industries, the building of community halls, construction of new school buildings, thorough revision of school curriculums, inoculations against common diseases, are in progress in about 73,000 of such villages. Plans are being formulated for increasing the number of Community Development Projects programs each year until the entire 558,000 villages have been improved.

We wish we could tell you more of our impressions, but this country is so vast and they worship so many different gods (or images, we should say). speak so many different languages (14 major ones), have so many different customs concerning worship, marriage, birth, death, dress, length of hair, eating, kinds of foods, time of eating, that by the time we get one set of impressions to tell you about a whole new wave of them sweep over us.

There are two Communist papers available to all at all times. However, virtually all of the editorials in the Indian papers are against communism for India. The welfare state that Nehru talks about seems in reality a simple desire for food, health, shelter and education for his people to be achieved through democratic means. Some Indians want all government control, some, all private enterprise; the majority, a combination of both—just as we have.

In New Delhi among exhibitions from many countries is the Atoms for Peace exhibition from America.

It is exciting to be here at this time as a new nation is being built out of the glories of the past.

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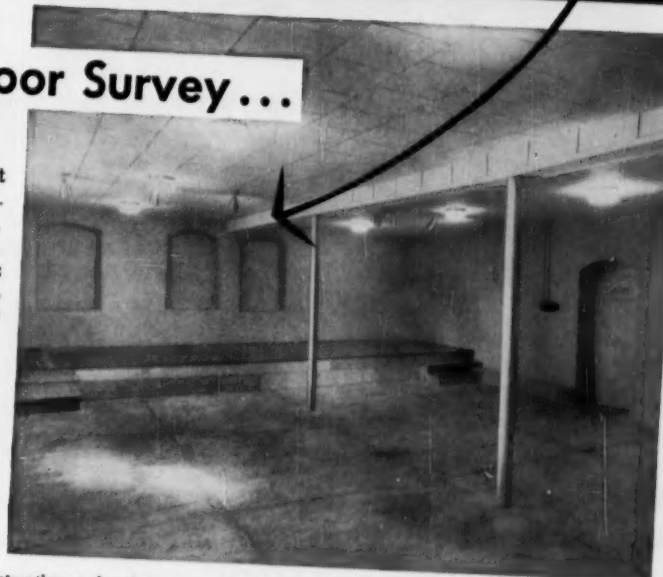
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Parents Will Have to Adjust to Integrated Schools, Too

NEW YORK.—Parents as well as their children will have to adjust to integrated schools, Kenneth Clark, associate professor of psychology at City College of the City of New York, told the *New York Times* in an interview. Parents who have lived more or less "segregated" lives may find they have to make some emotional adjustments to the situation.

Children who have been in segregated schools must be helped to adjust to a new situation, Dr. Clark said.

ABOUT PEOPLE

APPOINTED . . .

Martin W. Essex, superintendent at Lakewood, Ohio, to the superintendency at Akron, Ohio. Mr. Essex will succeed Otis Hatton, who announced his retirement several months ago. Mr. Hatton



Martin W. Essex

has been superintendent at Akron for 14 years and was formerly assistant superintendent there.

Mr. Essex began a four-year term as a member of the executive committee of the A.A.S.A. in March 1955. He served for six years as chairman of the N.E.A. tenure and academic freedom committee and recently directed a statewide campaign in Ohio for the constitutional amendment which created a state board of education.

Mr. Essex has been a frequent contributor to *The Nation's Schools* and has been a member of the magazine's editorial advisory board since January 1952.

Harley J. Powell, superintendent at Wauwatosa, Wis., to the superintendency at Richland Center, Wis., succeeding Gilbert H. Grosenick.

Dillie Kelley, principal of the high school at Friona, Tex., to superintendency there, succeeding Dalton Caffey.

W. M. Roberts, principal at Farwell, Tex., since 1949, to superintendency at Estelline, Tex., succeeding A. Y. Graham, now superintendent for Hall County, Memphis, Tex.

James T. Lowe, superintendent at Knott, Tex., to superintendency at Mertzon, Tex.

Delmer E. Lummus, superintendent at Leona, Tex., to superintendency at Jarrell, Tex.

Clem Hamilton, former superintendent at Panama, Okla., to superintendency at Heavener, Okla., succeeding Homer S. Reese.

Al Harris, superintendent at Clinton, Okla., to president of Northwestern State College, Alva, Okla., succeeding Sabin C. Percefull.

Smitty Williams, principal of the high school at Meeker, Okla., to superintendency there, succeeding Clyde Foster.

Doyle Monger, superintendent at Eureka, Okla., to superintendency at Fort Supply, Okla. Meade B. Shirey, teacher at Perry, Okla., is the new superintendent at Eureka.

Ed Haynie, superintendent at Bokchito, Okla., to superintendency at Sadler, Tex.

Merwin Deever, principal of the junior high school at Woodward, Okla., to superintendency there, succeeding Wilson Riley.

Arrel L. Reed, principal of the high school at Carrier, Okla., to superintendency at Omega, Okla., succeeding Lavern Westfall, who will become superintendent at Temple, Okla.

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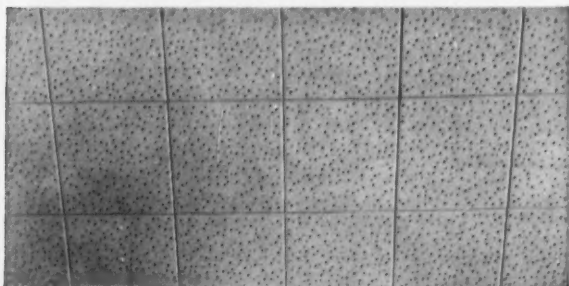
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NEWS

Lindley J. Stiles, dean of the school of education, University of Virginia, to the University of Wisconsin as dean of the college of education there. Dr. Stiles will succeed **John Guy Fowlkes**, who resigned as dean last fall, prior to leaving for India on a two-year mission for the ministry of education there.



Lindley J. Stiles

Dr. Stiles, who has been dean at the University of Virginia since 1949, is a native of New Mexico. He was teacher and administrator in the public schools of Boulder, Colo., for several years and taught at the College of William and Mary. He has been a member of the editorial advisory board of *The Nation's Schools* since March 1954.

Wallace R. Muelder, assistant superintendent, Riverside County schools, Riverside, Calif., to the superintendency at Palm Springs, Calif.

Norman Mitby, director of the school of vocational and adult education, Oshkosh, Wis., to a similar post at Green Bay, Wis., succeeding the late **H. O. Eiken**.

Floyd R. Porter, superintendent at Bloomville, Ohio, for the last eight years, to superintendency of Hopewell-Louden Schools, Bascom, Ohio.

Don Wyss, principal of the high school at Smithton, Mo., to superintendency at Jamestown, Mo., succeeding **A. O. Hardy**.

George Rempel, superintendent at Ashton, Neb., to superintendency at Eustis, Neb.

Augustus Keane, supervisor at Lynn, Mass., to superintendency at Provincetown, Mass.

Alton J. Bjork, professor of secondary education, University of North Dakota, to chairman of the department of education there.

Louis T. Benezet, president of Allegheny College, Meadville, Pa., since 1948, to president of Colorado College, Colorado Springs.

Roy Wilkins, chief assistant to the executive secretary of the National Association for the Advancement of Colored People, to executive secretary of the association, succeeding the late **Walter White**.

John E. Gee, chairman of the department of education, Bowling Green State University, Bowling Green, Ohio, has been appointed dean of the college of education at the university, succeeding **Herschel Litherland**, who returns at his own request to teaching duties in the department of education and to assisting in the student teaching program.

Charles Weaver, principal of the high school at Atoka, Okla., to superintendency at Allen, Okla., succeeding **J. N. McKeel**.

Clifford Bury, principal of the grade school, Stockland, Ill., to superintendency there.

Raymond Jansen, superintendent at Sharpsburg, Iowa, to superintendency at Wales, Iowa, succeeding the late **Everett Fuller**.

Vernon Barnes, principal of the high school at Carnegie, Okla., to superintendency at Verden, Okla.

Fred D. Fechtman, superintendent at Tell City, Ind., to superintendency at Peru, Ind., succeeding **Clyde Cunningham**. **Glen Bretz**, supervisor of safety and elementary physical education at Evansville, Ind., is the new superintendent at Tell City.

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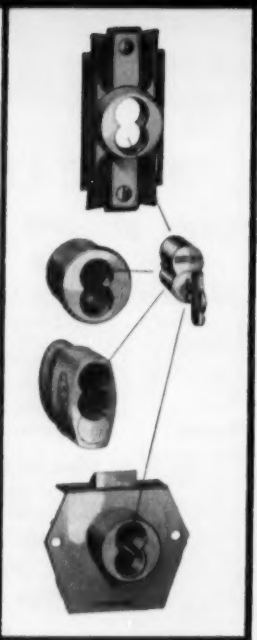
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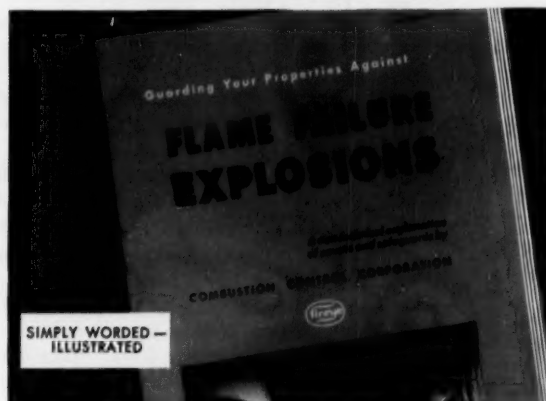
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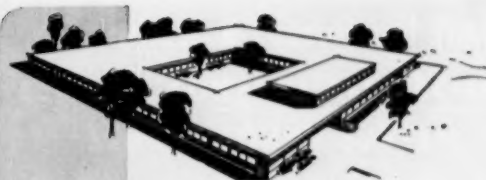


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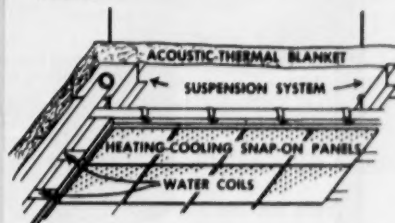
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NEWS

A. Gerald Ogborn, principal of the high school at Burbank, Calif., to superintendency of the high school district at Bishop, Calif.

Chester W. Parker, superintendent at Ava, Mo., for the last 17 years, to superintendency at Waynesville, Mo.

Sloan Wilson, staff member of the University of Buffalo, on leave to serve as assistant director of the White House Conference on Education.

Frederick O. Pinkham, executive director of the National Commission on

Accrediting, to president of Ripon College, Ripon, Wis.

Walter C. Langsam, president of Gettysburg College, Gettysburg, Pa., to president of the University of Cincinnati, succeeding **Raymond Walters**, who is retiring after 23 years as president, effective September 1.

John C. Lucas, district superintendent at Westwood, Calif., to superintendency of Armijo Union High School, Fairfield, Calif., succeeding **Loren A. Wann**.

George S. Bergmann, superintendent at Pisgah, Iowa, to superintendency for Adair County, Greenfield, Iowa, succeeding **Edna Barnes**.

Webster E. Wells, principal at Marble Hill, Mo., to superintendency for Bollinger County, Marble Hill, succeeding **Glen A. Scabaugh**.

Howard L. Johnson, athletic director at Arkansas Baptist College, Little Rock, to president of the college, succeeding **Tandy W. Coggs**.

Willis M. Tate, vice president of Southern Methodist University, Dallas, Tex., to president there, succeeding **Umphrey Lee**.

Otto Phillips, former elementary supervisor for Forrest County, Hattiesburg, Miss., to superintendency there, succeeding **Duncan O. Davis**.

J. D. Wilson to superintendency for Osage County, Linn, Mo., succeeding **Josephine Bish**, superintendent there for the last four years.

Marvin A. Rosbrugh, principal of the elementary school, El Dorado Springs, Mo., to superintendency for Cedar County, Stockton, Mo., succeeding **Woodford C. Wilson**.

Elmer Ellis, acting president of the University of Missouri, Columbia, for the last year, to president.

Wayne W. Loomis, principal of the high school, Atwood, Kan., to dean of McCook College, McCook, Neb.

William Glenn, superintendent at Sterling, Kan., to counselor and assistant professor in the department of student services, University of Wichita, Wichita, Kan. **Galen Davidson**, principal of the elementary school at Sterling, has been appointed superintendent there.

Harry A. Koss, principal of Lincoln junior high and elementary school, South Bend, Ind., to superintendency at Logansport, Ind., succeeding **Carl Zimmerman**.

Raymond W. Kuehl, superintendent at Dundee, Iowa, to superintendency at Strawberry Point, Iowa, succeeding **Frank S. Runyon**, superintendent there for the last 17 years.

Arnold Holz, superintendent at Spring Valley, Minn., to superintendency at Fridley, Minn.

Roland M. Rockwell, high school principal at Livingston, Wis., to superintendency at Brodhead, Wis.

J. J. McPherson, executive secretary, department of audio-visual education, N.E.A., to director of Audio-Visual Center, Wayne University College of Education.

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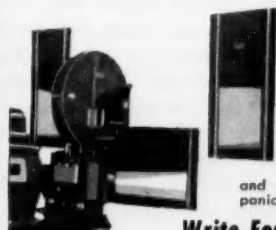
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Selects any or all rooms (available with up to 40 room capacity). Distributes any 2 programs; selects communication and room-return.

2 FM-AM RADIO

Selects any radio program on the complete FM band or the entire AM standard Broadcast band for distribution to any or all rooms.

3 PROGRAM PANEL

Selects and distributes any of 2 microphones (one at Console and one remote), Radio or Phonograph.

4 INTERCOM

This panel serves as the second program panel and as the intercom panel permitting 2-way conversation with any room.

5 ALL-CALL SWITCH

An Emergency and All-Call feature—instantly connects all rooms to receive programs or instructions.

6 RECORD CHANGER

Highest quality Automatic Changer plays records of all sizes and all speeds.

This System is also available in 5114 Console model, less desk. Write for full descriptive details covering these quality-built, ultra-modern systems.

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Send full details on RAULAND School Sound Systems.

We have classrooms; auditorium seats

Name Title

School

Address

City Zone State

NEWS

Keith Y. Carper, principal of the high school at South Whitley, Ind., to superintendency at Ligonier, Ind.

Bentley F. Stracener, principal of the high school, Mountain Home, Ark., to superintendency there, succeeding **Harold L. Overbey**, who has accepted a position in the state department of education, Little Rock.

Jack A. Frost, principal of the high school at Falfurrias, Tex., to superintendency at Celina, Tex., succeeding **W. H. Miller**.

A. L. Knoblauch, director of the summer sessions and of the extension division of the University of Connecticut, to president of State Teachers College, Moorhead, Minn.

Gordon A. Sabine, dean of the school of journalism at the University of Oregon, to dean of the school of communication arts at Michigan State University, East Lansing. Dr. Sabine will head a newly created school which includes the departments of journalism and speech.

W. A. Wittich, director of the bureau of audio-visual instruction, extension division, University of Wisconsin, is the new president of the N.E.A. Department of Audio-Visual Instruction.

Frank Dickey, dean of the school of education, University of Kentucky, and **Gerald Reed**, professor of education, Kent State University, Kent, Ohio, to the national teacher education and religion committee of the American Association of Colleges for Teacher Education.

Frances M. Mayfarth, professor of education at New York University, to presidency of Wheelock College, Boston, succeeding **Winifred E. Bain**, who has served for the last 15 years.

Louis A. Krug, principal of the high school, Collegeville-Trappe Joint High School, Collegeville, Pa., to superintendency there, succeeding **Howard B. Keyser**.

E. S. Scott, business manager of schools at Quincy, Ill., to president of the Illinois Association of School Business Officials, succeeding **Oscar Lanphar**, secretary-business manager of Evanston elementary schools.

M. M. Culver, superintendent at Gowrie, Iowa, to superintendency at Sibley, Iowa, succeeding **W. Paul Forney**, at Carroll, Iowa.

Lawrence Retzlaff, coach at Atkinson, Neb., to superintendency at Broadwater, Neb.

V. E. Burchill, superintendent at Parshall, N.D., to superintendency at Townner, N.D.

A. L. Cooper, superintendent at Poplar, Mont., since 1946, to superintendency at Hamilton, Mont., succeeding **Charles D. Haynes**, retired.

RESIGNED . . .

Edwin E. Higgins, superintendent at Gallipolis, Ohio.

J. F. Pugh, superintendent for Camden County, Camden, N.C.

Harry A. Greene, director of the bureau of educational research and service at the State University of Iowa.

Z. B. McAlpin, superintendent at Pinola, Miss.

David W. Henry, dean of the college of education, University of Toledo, Toledo, Ohio.

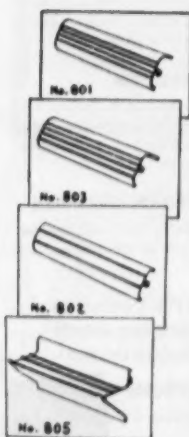
Robert E. Ricketts, superintendent at Evergreen Park, Ill.

George F. Freisleben, superintendent at Westby, Mont., for the last 36 years.

Musetta Gilman, superintendent for Madison County, Madison, Neb.

For the MODERN CLASSROOM

- * Lasting classroom beauty
- * Easy to install
- * Economical
- * Harmonizes with any interior
- * Fire-safe
- * Non-tarnishing
- * Cannot split or crack



Rowles Aluminum Chalkboard Trim

The new ROWLES ALUMINUM CHALKBOARD TRIM will help give your classrooms a smart, up-to-date appearance at an amazingly low cost. This new line of precision formed extruded aluminum moldings and chalk trough is attractively designed to blend well with any type of interior styling.

Rowles Aluminum Chalkboard Trim is far superior to the less durable types of material. It cannot warp, split, crack, splinter or rot. Above all, it cannot burn. One installation lasts the entire life of your building.

Rowles Aluminum Chalkboard Trim is easy to install. Clip channel is screwed or nailed to rough ground—then snap the molding in place. Corners and joints are easily mitered. No costly fittings to purchase.



WRITE FOR SAMPLES. Additional information, samples and installation details may be obtained from your local Rowles School Equipment Dealer, or by writing direct to

E. W. A. ROWLES CO.
ARLINGTON HEIGHTS, ILLINOIS

B. E. McPherson, superintendent at Albertville, Ala.

J. E. Murphy, superintendent at Hurley, Wis., for the last 48 years.

D. T. Craver, superintendent at Port Neches, Tex.

John H. Hulvey, superintendent at Davenport, Wash., since 1947.

James B. Boren, president of Midwestern University, Wichita Falls, Tex.

W. O. Silk, superintendent at Frisco, Tex., for the last six years.

L. L. Shannon, superintendent at Swifton, Ark.

Deral I. Phillips, superintendent of district No. 122, Cashmere, Wash., since 1943.

Guy S. Harris, superintendent at Patriot, Ind., since 1932.

Homer Tucker, superintendent at Rising Sun, Ind., for the last 17 years.

Calvin Smith, superintendent at Wewoka, Okla., since 1949.

DIED . . .

Arthur L. Johnson, 86, superintendent for Union County, Elizabeth, N.J., since 1914.

B. A. Winans, 83, superintendent at Livingston, Mont., for 31 years.

Frederick N. Frits, 83, former superintendent at Clairton, Pa.

Claire B. Cornell, former superintendent at Shaker Heights, Ohio.

J. Leslie Purdom, former president of Harris Teachers College, St. Louis.

Mabel Hyde Kittredge, 87, sociologist and inaugurator of the children's lunch program in New York City schools.

J. R. Inman, former superintendent at Red Oak, Iowa.

Melvin C. Knight, 62, superintendent at Barnstable, Mass., since 1939.

Karl A. Reiche, 69, superintendent at Bristol, Conn., for 42 years.

Arthur C. Huselid, superintendent at Renville, Minn.

G. W. Yoak, superintendent at Calhoun, W.Va.

Waldo E. Lessenger, dean of the college of education at Wayne University, Detroit, and past president of the American Association of Colleges for Teacher Education.

George E. Denny, chancellor and former president of the University of Alabama.

L. B. Stough, superintendent at Phenix City, Ala., since 1923.

Arthur C. Stenius, director of the audio-visual center, college of education, Wayne University, Detroit.

Andrew D. Oliver, district superintendent for the second supervisory district of Monroe County, Brockport, N.Y.

Will C. Crawford, on May 30, for 20 years superintendent of San Diego schools. Following his retirement last year at San Diego, Dr. Crawford became associated with the department of education of the University of California at Los Angeles. From 1940 to 1954, he served as a consultant of The NATION'S SCHOOLS.

William Claude Reavis, 73, professor emeritus at the University of Chicago and author of several education textbooks, June 2 after a long illness. Dr. Reavis, who went to the university in 1927, was a specialist in school administration. Earlier he had been a high school principal in Chicago and St. Louis, and a school superintendent for three years at Alton, Ill. Recently he had been honored in a resolution by the Illinois Association of Business Officials, which he founded.

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Pure-Pak Cartons!

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Safe, sanitary, economical



Or... pour like a pitcher!

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The Perfect milk carton

FOR VENDING MACHINES, TOO!

THE BOOKSHELF

Printed publications of interest to school administrators are listed as received.

ADMINISTRATION

Problems, Progress, Procedures in the Improvement of School Administration. Statewide C.P.E.A. Evaluation Conference, University of New Mexico, Albuquerque, Dec. 10 and 11, 1954. New Mexico schoolmen exchange views on their accomplishments in finding better practices and better ways of spreading those practices in order to improve their school systems. Spon-

sored by the Southwestern Cooperative Program in Educational Administration, H. F. Alves, director, Box 1666, University Station, University of Texas, Austin. Pp. 44.

How Can We Discuss School Problems? A guide to conferences on school problems. Working guide No. 38. National Citizens Commission for the Public Schools, 2 West 45th St., New York 36, N.Y. Pp. 44.

Public School Finance Programs of the United States. By Clayton D. Hutchins, specialist in school finance, and Albert R. Munse, research assistant, both of the U.S. Office of Education, Washington, D.C. Misc. No. 22. U.S. Government Printing Office, Washington 25, D.C. Pp. 251. \$1.50.

Junior High School Trends. By Leonard V. Koos. College department, Harper & Brothers, 49 East 33d Street, New York 16, N.Y. Pp. 171. \$2.50.



Walter Horst, Superintendent
Three Rivers, Michigan



COULD YOUR GYM FLOOR STAND UP TO THIS?

**a dance a week...
and basketball, too!**

Just imagine the scraping and pounding a gym floor takes when it's used for a dance. Yet floors protected with Seal-O-San stand up to it in fine shape!

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AUDIO-VISUAL

Selected Films for World Understanding. A guide for films for study and discussion of America's rôle in the world today. Prepared by Wendell W. Williams, audio-visual center, division of adult education and public services, Indiana University, Bloomington. Pp. 88. \$1.

Films on the Handicapped. By Jerome H. Rothstein, associate professor of education, San Francisco State College, and Thomas O'Connor, Jefferson Union School District, Daly City, Calif. An annotated bibliography and source book of films, filmstrips, slides and recordings on the diagnosis, care, education and rehabilitation of persons with various kinds of handicaps. International Council for Exceptional Children, N.E.A., 1201 16th Street, N.W., Washington 6, D.C. Pp. 56. \$1.50.

Human Relations and Audio-Visual Materials. By Jean D. Grambs. Explains the basis for selecting a particular visual aid for a particular purpose, audience and program sequence in intergroup education. Ways of using audio-visual materials for increased understanding of human relations are illustrated and specific examples of materials that teachers have found useful are given. Materials and sources are listed in a bibliography. The National Conference of Christians and Jews, 47 West 57th Street, New York 9, N.Y. Pp. 68. 25 cents.

Bulletin Boards for Teaching. By Charles Dent, coordinator of student teaching, college of education, University of Texas, and Ernest F. Tiemann, director of the visual instruction bureau, University of Texas. Contains in outline form suggestions and technics for classroom teachers who are planning and preparing bulletin board displays. Includes a bibliography for

THE BOOKSHELF

locating bulletin board and other curricular materials. Bridges for Ideas, pamphlet No. 2. The Visual Instruction Bureau, division of extension, University of Texas, Austin 12. Pp. 38. \$1.

Field Trip Pointers for Parent Guides. Outlines the steps that parents should take in organizing and carrying out a field trip for school children. Suggestions are given for ways in which to control the group and help children make the most of the excursion. Audio Visual Materials Consultation Bureau, Wayne University, Detroit.

PUPIL PERSONNEL

Careers for Women in the Armed Services. B'nai B'rith occupation brief series. B'nai B'rith Vocational Service Bureau, 1761 R Street, N.W., Washington 9, D.C. 20 cents.

Getting Along With Your Parents. By Daniel D. Raylesberg, with editorial assistance of Harold Eidlin. B'nai B'rith guidance series. B'nai B'rith Vocational Service Bureau, 1761 R Street, N.W., Washington 9, D.C. Pp. 15. 20 cents.

Careers in Home Improvement Contracting. B'nai B'rith careers in contracting series. B'nai B'rith Vocational Service Bureau, 1761 R Street, N.W., Washington 9, D.C. 20 cents.

Modern Methods and Techniques in Guidance. By Roy DeVerl Willey, University of Utah, and Dean C. Andrew, Southern State College, Arkansas. Harper & Brothers, 49 East 33d St., New York 16, N.Y. Pp. 653. \$5.

What You Should Know About Smoking and Drinking. By W. W. Bauer, director, bureau of health education, American Medical Association, and Donald A. Dukelow, consultant in health and fitness, bureau of health education, American Medical Association. Science Research Associates, 57 West Grand Ave., Chicago 10, Ill. Pp. 40. 50 cents.

SAFETY EDUCATION

Misguided Missiles. The Travelers 1955 book of street and highway accident data. The Travelers Insurance Companies, Hartford, Conn. Pp. 29.

SECONDARY EDUCATION

Principles of Secondary Education. By Rudyard K. Bent, professor of education, University of Arkansas, and Henry H. Kronenberg, dean of the college of education, University of Arkansas. McGraw-Hill Book Com-

pany, Inc., 330 West 42d Street, New York 36, N.Y. Pp. 542. \$5.50.

SCHOOLHOUSE PLANNING

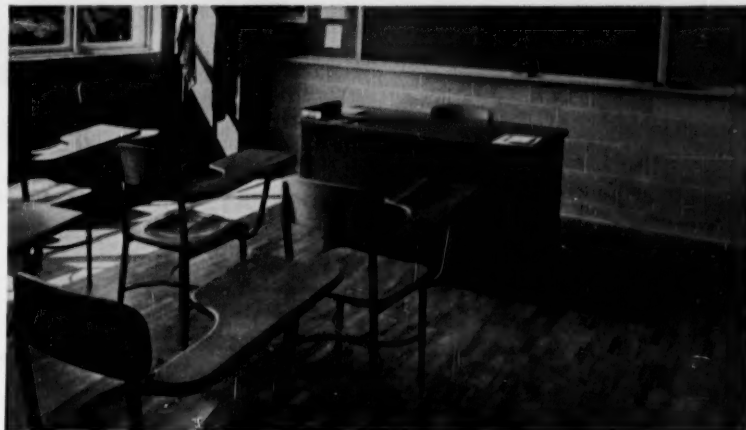
New Horizons in Color. By Faber Birren. A study of the ways in which the emotional quality of color affects working conditions, eases eyestrain, lessens fatigue, and lowers accident rates. With charts, diagrams and many illustrations, Mr. Birren suggests color selections that create a good atmosphere

for various kinds of work and increase productivity and safety. Gives a history of the uses of color in decoration and architecture throughout the ages and discusses the functional use of color in education. Reinhold Publishing Corp., 430 Park Ave., New York 22, N.Y. Pp. 200. \$10.

Schoolhouse Story. How Georgia is building \$200 million worth of school buildings. Georgia State Department of Education, Atlanta.

SCHOOL FLOORS THAT OUTLAST THE BUILDING

for Gymnasiums, Classrooms, School Shops



ROBBINS IRONBOUND* CONTINUOUS STRIP* NORTHERN HARD MAPLE FLOORING

You're looking at a floor designed to "take it"! Uniformly resilient, tight grained and splinter resistant, it will still be smoothly beautiful for generations to come.

To achieve this happy combination of beauty and long run economy Robbins uses finest strips of Northern Maple, laid in mastic and interlocked with saw-tooth steel splines at the end of each strip. That's why a Robbins IRONBOUND CONTINUOUS STRIP floor stays tight and smooth so many times longer.

If you are building or remodeling your school, write for the name of your nearest Robbins contractor-installer. He'll show you specifically how much you save with beautiful maple flooring.

Address inquiries to Robbins Flooring Company Reed City, Michigan.



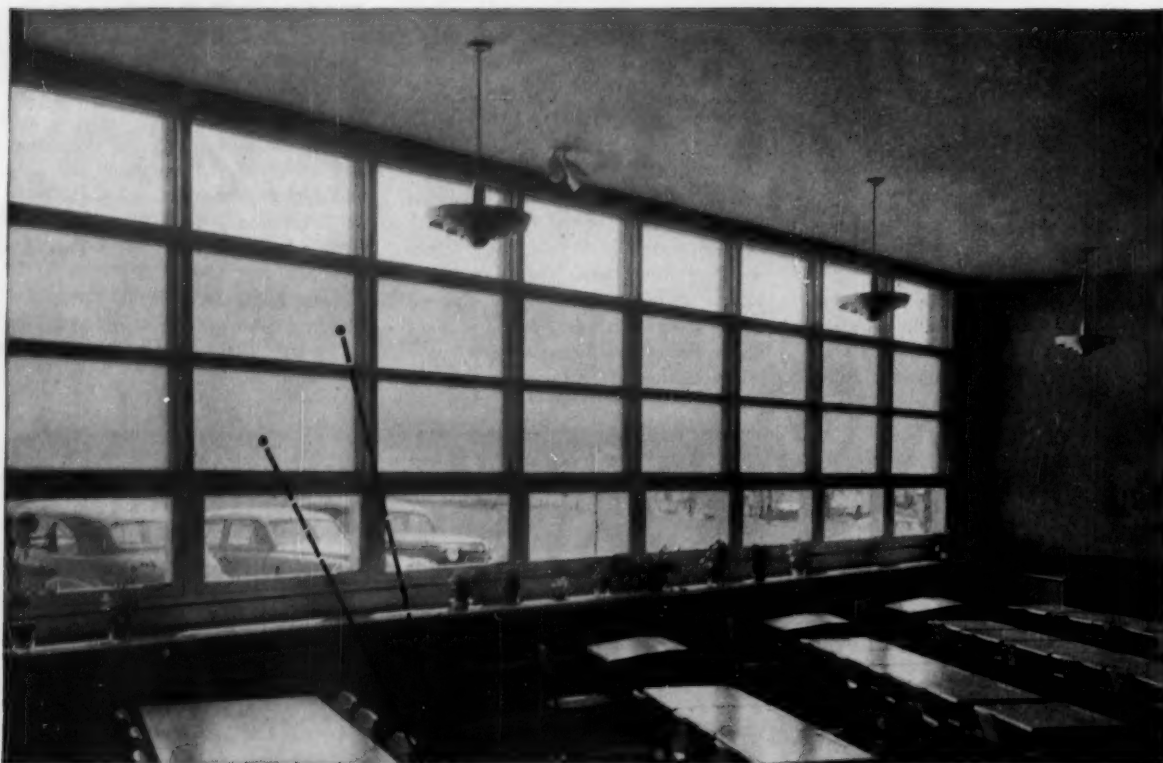
ROBBINS FLOORING COMPANY

WORLD'S LARGEST MAPLE FLOORING MANUFACTURER

Reed City, Michigan

Ishpeming, Michigan

* T.M. Reg. U.S. Pat. Off.



Farmdale Elementary School, Landisville, Pa. Architects: Coleman & Coleman.
Glazier: Earl V. Schaffer. General Contractor: Rice & Weidman, Lancaster, Pa.

PUT **COOLITE** THERE TO STOP HEAT AND GLARE

Coolite Glass Installed In Center Sash Filters Harmful Qualities of "Raw Sunlight"

Coolite, Heat Absorbing and Glare Reducing Glass, installed in the two center lights of this school day-lighting wall keeps unwanted factors in "raw sunlight" on the absent list . . . floods classroom with softened, delicately tinted natural illumination . . . helps protect precious young eyes from dangerous fatigue, strain. Coolite helps keep classrooms cooler, too, since it absorbs over half of solar heat. Classrooms are bright as all outdoors, seem larger, friendlier . . . and Coolite-controlled light helps students feel and see better.

When you build or remodel your school buildings, take advantage of Mississippi's school daylighting knowledge which is supplemented by continuing research in a specially designed school room erected on factory grounds. Mississippi has a school-tested pattern for every requirement in line with your school building budget. Mississippi technicians recommend these outstanding patterns for school use: Coolite for maximum comfort; Pentecor, for maximum light distribution; Hylite, for maximum light transmission; Polished Misco Wire Glass, for maximum beauty with protection.

Write today for free booklet,
"Better Daylighting For Schools."

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MISSISSIPPI *Glass* **COMPANY**
88 ANGELICA ST. SAINT LOUIS 7, MO.
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WORLD'S LARGEST MANUFACTURER OF ROLLED, FIGURED AND WIRED GLASS

What's New FOR SCHOOLS

JULY 1955

Edited by BESSIE COVERT

TO HELP YOU get more information quickly on the new products described in this section, we have provided the postage paid card opposite page 148. Just circle the key numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. The NATION'S SCHOOLS will send your request to the manufacturers. If you wish other product information, just write us and we shall make every effort to supply it.

Furniture Manufacturer Adds Classroom Units



A large plant, its own tubing mill and labor-saving devices for the manufacture of furniture are facilities of the Kuehne Manufacturing Company now being employed in the manufacture of classroom units. The new line includes lift top desks, seats, stacking chairs, and teachers' single and double pedestal desks.

The new furniture is functionally designed for proper posture, durability and attractive appearance. It is being produced in three durable finishes—spring green, metallic-mist gray and non-reflecting satin chrome. All writing surfaces are of 11 ply hardwood protected with General Electric Textolite plastic in an assortment of colors to blend with any decor.

The lift lid desk and matching chair illustrated are typical of the new line. The posture chair has a five-degree pitch on the back and a three-degree pitch on the seat for correct posture with maximum comfort and minimum fatigue. A large cleanout hole is provided in the desk and the top glides down slowly to eliminate noise and crushed fingers. The tapered legs of heavy gauge steel and the construction ensure durability and strength. Chrome-plated, rubber-mounted self-leveling glides provide for stability on any type floor and for easy and silent movement in classroom rearrangement. The desk is designed to provide maximum working space and book storage and the unit requires minimum space in storage. Kuehne Mfg. Co., Mattoon, Ill.

For more details circle #947 on mailing card.

Solution Controller for Dishwashing Machines

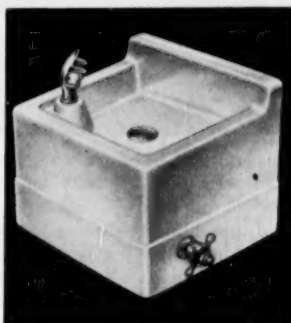
The new Wyandotte Electronic Solution Controller for use in conjunction

with the Wyandotte Hydro Feeder provides an efficient electronic unit for the control of dishwashing solution. It may be remotely mounted from the dishwashing machine and indicates the condition of the washing solution by colored lights. Wyandotte Chemicals Corp., J. B. Ford Division, Wyandotte, Mich.

For more details circle #948 on mailing card.

Wall Fountain Has Modern Design

The new Model No. 7X Wall Fountain combines extreme ruggedness with modern design. Styled by Channing Wallace Gilson, industrial designer, it is free from dirt-catching corners and is attractive in appearance. It is constructed of acid-resisting enameled cast iron for permanent, trouble-free operation and to withstand even the abuses of the school yard. The angle stream, shielded head of chromium plated brass assures sanita-



tion. The bubbler is mounted well above the bowl rim to protect the supply outlet from back-up water. It has positive anti-squirt, automatic stream control to prevent water from getting onto floors or walls. Haws Drinking Faucet Co., 4th & Page Sts., Berkeley 10, Calif.

For more details circle #949 on mailing card.

Tempera Water Colors in Semi-Solid Cakes

A new and versatile art medium is available in Alphacolor Brilliants. The semi-solid cakes of highly concentrated pigment provide tempera-water colors which are easily and smoothly applied by just dipping a brush in water and applying it to the Brilliants. They are always ready to use and can be applied to almost all surfaces. Weber Costello Co., Chicago Heights, Ill.

For more details circle #950 on mailing card.

(Continued on page 138)

Luminous Ceiling Material for Non-Glare Lighting

Low-cost, non-glare lighting is offered with the new Boltaron LC9100 corrugated luminous ceiling material. The low-cost material is designed for modern installations in institutional and other lighting. Boltaron LC9100 is a fire-resistant polyvinyl acetate material which comes in white corrugated translucent sheets that are shatterproof and will not crack, craze, warp, rot or mildew. It transmits fluorescent light at high efficiency, yet diffuses it to produce shadowless, non-glare illumination. The material is decorative as well as functional and is now available in widths from 12 to 48 inches, in lengths up to 100 feet. Bolta Products, Lawrence, Mass.

For more details circle #951 on mailing card.

Junior Planetarium Has Arrow Attachment

An electronically operated arrow attachment permits instructor or student to point out constellations projected on the ceiling with the new 1955 model Spitz Junior Planetarium. The arrow indicator plugs into an outlet in the base of the unit and projects a bright clear arrow for pointing out any of the 40 constellations or some 300 stars which can be shown with the Junior Planetarium. The indicator attachment can also be converted to provide light for reading the accompanying booklet which identifies constellations and important stars.

Made of tough unbreakable plastic, attractively colored, the unit is easily operated by plugging into any regular



current, in any totally dark room. The Spitz Junior Planetarium is patterned after professional models and is offered at small cost. Harmonic Reed Corp., Rosemont, Pa.

For more details circle #952 on mailing card.

What's New ...

Rota Desk Has Unique Design

Offering a new design and a new concept in movable classroom seating, the



Rota Desk combines simplicity of line with stability. The open circle design provides unrestricted foot room and is extremely easy to sit in or get up from, combining comfort and convenience.

Either left or right handed pupils are accommodated in the Rota because of the generous size of the writing top. The curved plywood back and chair seat are designed for correct posture as well as comfort. Electrically welded joints in the tubular frame ensure strength and durability and the box type adapter holds the writing top rigid. A convenient book rack is available just below the seat. The tubular metal parts are finished with baked-on taupe enamel and all plywoods have natural non-gloss lacquer finish. Rota desks are available in 14, 16 and 18 inch seat heights. Beckley-Cardy Co., 1900 N. Narragansett Ave., Chicago 39.

For more details circle #953 on mailing card.

Accessory Unit for Overhead Daylighting

The Wascolite Ceiling Dome is an accessory unit for use with the Wascolite Skydome for a prefabricated overhead daylighting unit. Designed for installation at ceiling level under the Skydome, the Wascolite Ceiling Dome provides



added insulation and daylight diffusion. Made of acrylic plastic, it forms an attractive, flush ceiling and can be used to conceal electric lighting fixtures installed in the well. Wasco Products, Inc., 93P Fawcett St., Cambridge 38, Mass.

For more details circle #954 on mailing card.

Ludman Projected Windows Are Weathersealed

Rigid construction and weathersealing result in tight closing for the new Ludman Aluminum Intermediate Projected Window. The window is offered in modular sizes. Special corner braces fabricated from white bronze give the window extra strength and rigidity and permit adjustment, if necessary, for ease of operation of the vent after erection.

Two vertical guides center the vent on the window when it is closed. Screens can be installed from the inside of the building with the new window. The projected window mullion bar and cover are designed with vertical flutes to hold the straight-line look and contribute additional strength and rigidity. All horizontal hardware bars have been designed with 3/16 inch web. Vinyl weatherstripping around the complete perimeter of the projected windows adds to comfort and reduces fuel consumption. The new windows are designed and constructed for years of trouble-free weather control.

Ludman Corporation, North Miami, Fla.

For more details circle #955 on mailing card.

Special Transportation Handled by Carryall

The new model of the Chevrolet Carryall is a flexible transportation unit



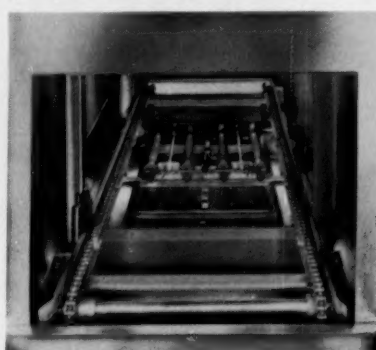
for school service. Equipped with seats, it has an eight pupil capacity for transportation of pupils over remote routes, to speed up student pick-up and delivery by handling outlying districts, and as an auxiliary vehicle for small groups. It is economical in operation and meets all state school bus performance and safety regulations. With the two seats removed the versatile unit can be used as an all-purpose truck. It can be equipped with any one of five different transmissions. Chevrolet Motor Division, General Motors Corp., A-227 General Motors Bldg., Detroit 2, Mich.

For more details circle #956 on mailing card.

Improved Conveyor in Redesigned Dishwashers

Described as all new, inside and outside, the Blakeslee door type dishwashing machines feature the advanced engineering design indicated by the conveyor illustrated. Made with stainless steel tracks with stainless steel conveyor chains, the mechanism is built to stand up against corrosion caused by water softeners, dishwashing compounds or occasional careless cleaning of the machines. Conveyor chains have ni-resist

conveyor lugs which pull dish racks into machine and push them out onto the clean dish table. Lugs prevent operators from pushing racks through the machine too fast, with insufficient time for



proper washing, rinsing and sanitizing of dishes.

The new line has other new engineering features for efficient operation and long life with minimum maintenance. All interior parts are constructed of stainless steel or ni-resist. Final rinse water is automatically turned off and on by dish racks tripping a sensitive lever in passing. An adjustable friction clutch in the conveyor mechanism eliminates any strain in case of jamming. The advanced engineering features are incorporated into all machines, including single and double tank automatic conveyor model dishwashers. G. S. Blakeslee & Co., 1844 S. Laramie Ave., Chicago 50.

For more details circle #957 on mailing card.

Folding Stage Is Readily Portable

Easy portability and flexibility are features of the Wenger Portable Stage. Strong enough to support gym activities, the stages can be set up, moved or stored in a matter of minutes. Steel channel frames fastened underneath each section provide solid support and a large steel channel extending the length of the section in the middle provides additional



reinforcement. Individual sections are firmly held together with a new locking system. Any size stage may be provided. Wenger Music Equipment Co., Owatonna, Minn.

For more details circle #958 on mailing card.

(Continued on page 140)

Bad marks on your floors?



They'll pass with **Bassick** glides!

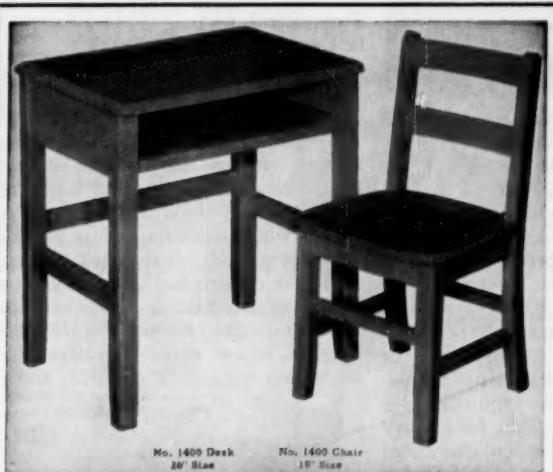
Put shock-absorbing Bassick Rubber-Cushion Glides on school tables, chairs, desks and similar furniture — and your floors will never flunk inspection! Broad, flat base of highly polished steel whispers across floors with never a mark. Start using them today — your floors deserve them. **THE BASSICK COMPANY**, Bridgeport 2, Conn. In Canada: Belleville, Ont.



Bassick
A DIVISION OF



MAKING MORE KINDS OF CASTERS... MAKING CASTERS DO MORE



No. 1400 Desk
24" Size

No. 1400 Chair
15" Size

SUPERIOR SCHOOL FURNITURE

Construction of selected Appalachian kiln-dried Beech. Desk units with mortise and pegged tenon; chairs with spiral-grooved dowels and rigidly glued corner blocks. In Natural, Warmtone, or School Brown. Line also includes Movable Chair Desks, Tables, Tablet Arm Chairs, and Teachers Desk.

Also available with plastic surface.

Write for name of authorized distributor in your state.

WILLIAMS & BROWER, Incorporated
SILER CITY • NORTH CAROLINA

Performance-Proved at THE MENNINGER FOUNDATION

Topeka, Kansas

in 1955 food service award-winner

HERRICK

* STAINLESS STEEL REFRIGERATORS



Directly above is a close-up of HERRICK Model SP33B. There are three other HERRICK Stainless Steel Refrigerators in this kitchen.

Top picture is an exterior view of the new addition to The Menninger Foundation, showing the patio and main dining room. This HERRICK-equipped hospital won a First Award in this year's Institutions Magazine's Food Service Contest. Directly above is a general view of the kitchen. Architects for the new addition were Griest and Ekdahl, Topeka, Kansas. HERRICK units were supplied by Smith St. John Manufacturing Company, Kansas City, Missouri.

Dedicated to the improvement of mental health, The Menninger Foundation in Topeka, Kansas has grown from a private medical partnership to a professional organization employing some 400 persons. Its staff members hold important positions in national and international psychiatric organizations. • The award-winning kitchen, located in the hospital's new wing, is equipped with HERRICK Stainless Steel Refrigerators. When it comes to keeping foods fresh and flavorful, nothing equals a thoroughly-dependable HERRICK. You, too, will find HERRICK Refrigerators unmatched for complete food conditioning at lowest cost per-year-of-service. Write for nearest HERRICK supplier.

*Also available with white enamel finish

HERRICK REFRIGERATOR CO., WATERLOO, IOWA
DEPT. N. COMMERCIAL REFRIGERATION DIVISION

HERRICK

The Aristocrat of Refrigerators

What's New ...

Economical Operation Feature of Intercom System

The new "6000" Electronic intercom system provides full communication by



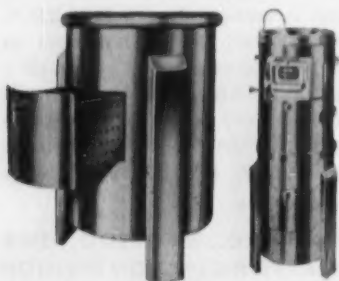
pushbutton as well as complete paging facilities. Master stations are available in attractive cabinets for desk or table, and in special wall-mounted housings. The central amplifier draws only as much current as a 30 watt bulb and is the only unit in the system requiring an electric power outlet.

Each master station may originate calls to five other master stations and may accept and reply to calls from any number of similar stations. Replies may be made from across the room if desired. A privacy button is provided on every master for use when desired. Earphones can be furnished on master stations for confidential operation. A special paging button on every master permits all stations to be called at once for paging. Trumpet stations for large open areas and remote-type "staff" stations are also available. Wall-mounted master stations are available in Flush-mount and Surface-mount models. **Executone, Inc., 415 Lexington Ave., New York 17.**

For more details circle #797 on mailing card.

Peel Trap Base Permits Permanent Installation

The new Univex stainless steel Peel Trap Base is designed as an accessory to



convert any portable Univex peeler into a floor model for permanent installation. Univex portable peelers may be bolted to the top of the new base with provision

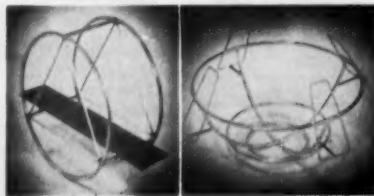
for peeling waste to be filtered into a stainless strainer within the base. Heavy satin finish stainless steel is used for construction of the new base which has adjustable stainless legs to accommodate different sink heights. **Universal Industries, 360 Mystic Ave., Somerville, Mass.**

For more details circle #960 on mailing card.

Revolutionary Play Equipment Is Modern, Safe and Intriguing

Revolutionary new designs are offered in Porta-Play play equipment for indoor and outdoor use. New designs, new uses and abundant color are combined in the new line. Complete ease of portability, without need for installation, makes the equipment especially suited to use in modern, flexible schools.

A number of units are available in the new line. The Rocka-Board and Rocka-Round pictured indicate the revolutionary design and modern concept of the equipment. The Rocka-Board is the modern version of the teeter-totter and can be used for climbing, rocking and gymnastics. Pupils can mount the Rocka-Board in all positions. The Rocka-Round is similarly adaptable and flexible and was inspired by the merry-go-round. When used upright it becomes a four-



way see-saw which can accommodate eight youngsters at a time. When upside down it is a jungle gym or an igloo.

Both items are constructed of welded aircraft aluminum tubing frame and are practically indestructible. They are rust and corrosion proof, require no maintenance or installation, and are extremely light weight. They are easily moved by one person and offer sound, fundamental design, ample space for group play and facilities for basic physical development. The equipment is manufactured by Porta-Play, Inc., a division of Dickey Industries, and distributed nationally by **Desco Corp., 13124 Shaker Square, Cleveland 20, Ohio.**

For more details circle #961 on mailing card.

Tubular Steel and Wood in Modern Classroom Furniture

Tubular steel and wood are combined in the new S & C "Yale" line of classroom furniture. Styled by Gordon Hrach, the new line features durability, comfort and contemporary design. The new line includes the "Yale" Chair Desk No. CD-2 illustrated as well as teachers' desks, chairs and desks for student typists, large classroom tables and a com-

plete selection of office furniture for school administrators and principals.

The line is sturdily constructed of one inch O.D. 18 gauge tubular steel with ½ inch O.D. 16 gauge tubular steel stretchers. Top, seat and back are avail-



able in plywood, plastic or hard maple. The extra large tablet arm and sturdy book rack of the chair desk illustrated make it suitable for any classroom use. Metal has "No Chip" finish in taupe or aqua-green. The line is available in a full range of sizes for all grades from kindergarten through college. **School & College Furniture, Inc., Div. of The B. L. Marble Chair Co., Bedford, Ohio.**

For more details circle #962 on mailing card.

Stair Climbing Is Feature of Hand Truck

Designed especially for use on stairs and ramps, the new Stair Cart is equipped with a special ratchet mechanism which enables it to roll up stairs step by step as the operator pulls a cable drive. Two-wheel safety brakes are incorporated in the truck to prevent accidents when descending ramps or stairs with heavy loads. Sealed ball bearings, steel tube construction and interchangeable shoes are features of the new cart which is designed for load flexibility and long life. It is equipped with large pneumatic tires for ease of operation and to



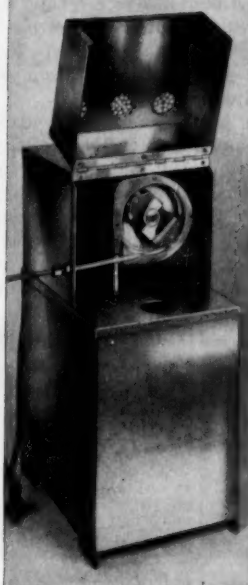
protect steps from marking. Six models are available for handling loads of various sizes. **Valley Craft Products, Inc., 750 Jefferson Ave., Lake City, Minn.**

For more details circle #963 on mailing card.

(Continued on page 142)

DRY DISHES

Faster



KLENZADE

FLASH-DRI FEEDER

- ★ Eliminates Water Spotting
- ★ Economical to Use
- ★ Constant Feed of Drying Agent
- ★ Easy to Install

Klenzade Flash-Dri Feeder is an automatic rinse line injector specifically designed to continuously add Klenzade Flash-Dri, a drying agent, into final rinse line on dishwashing machines. Flash-Dri Feeder is a simple, positive tube-type pump with only one moving part. Operated by dependable pressure switch for automatic rinse line injection. Easily installed on any dish machine.

Simple Automatic Operation

KLENZADE PRODUCTS, INC.
BELOIT, WISCONSIN

New SERIES 70 CHANNEL STEEL CHAIR

Check and compare all these exclusive engineered features

FRAME — Non-tipping Y-type 16-gauge double-beaded channel steel, electrically welded and riveted.

SEAT — Extra large, 14 1/2" x 15", 17" from floor. Steel or wood, contour shaped for full seating comfort.

BACK REST — Correctly postured, curved steel with fully rolled edge.

FEET — Swaged-on steel glides covered with white mar-proof rubber.

LEG BRACES — 3 leg frame stretchers prevent spreading or racking.

HINGES — Fully covered safety type prevent accidental pinching.

SEAT LOCKS — Free operating, positive holding — prevent chair collapsing.

Larger seat
LUXURY

Non-tipping
SAFETY

Longer durable
CHAIR LIFE



IN ADDITION TO THE NEW SERIES 70, Krueger offers a wide range of quality steel folding chair styles in a complete price range to meet every budget requirement.

Write for new catalog showing complete line.

KRUEGER
METAL PRODUCTS • GREEN BAY • WISCONSIN

SHOW YOUR COLORS!

... but fly the best!

For schools — DETTRA, flagmaker to the Nation for 50 years, offers American flags and State flags in a wide variety of styles, sizes and materials . . . ideal for schoolroom, assembly hall, playing field.



DETTRA FEATURES

- ★ Famous "BULLDOG" BUNTING
- ★ Long-lasting "DURA-LITE" NYLON
- ★ Beautiful, lustrous "GLORY GLOSS"
- ★ U. S. Flags—State Flags
- ★ School Flags
- ★ Decorations and Banners
- ★ Flag Accessories



ASK YOUR
DEALER OR WRITE
DETTRA FOR
DETAILED DESCRIPTIVE
LITERATURE

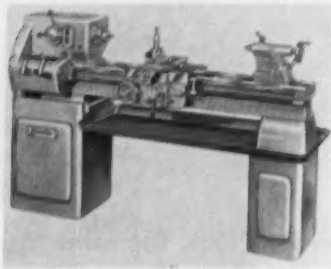
ASK ABOUT DETTRA'S NEW MOVIE "OUR U. S. FLAG"—a 16 mm. color movie is the ideal medium through which to tell the story of the Flag.

DETTRA FLAG COMPANY, INC.
Dept. N, Oaks, Pennsylvania
(Within sight of Valley Forge)

What's New ...

Geared Head Lathe for Vocational Classes

Rugged power is combined with tool-room accuracy in the new 15 inch Se-



bastian Geared Head Lathe. It is functionally designed for easy, economical operation, with all controls centrally grouped within reach of the student or teacher. Each lathe is rigidly checked for accuracy and gives the student an opportunity to learn on a machine tool with the power, modern controls and close tolerances of industrial equipment.

Features of the new lathe include a wide, heavy bed, all anti-friction bearing headstock with "zero precision" tapered roller bearings supporting the spindle, the cam action tailstock clamp and the easy shifting spindle speed dial. All gears in the headstock run in oil, are extra wide and designed for quiet, efficient

operation. A cabinet in the pedestal leg provides convenient storage space for tools and accessories. **Sheldon Machine Co., Inc., 4258 N. Knox, Chicago 41.** For more details circle #764 on mailing card.

Luminous Ceiling Provides Soft, Diffused Lighting

A combination of white translucent vinyl corrugated for rigidity and supported on extruded aluminum channels combined with standard Pittsburgh Fluorescent or Slimline Strip makes up the new Luma-Ceiling. It creates a ceiling of light which is soft and diffused, yet can be installed to give any required level of illumination. Shadows and sharp contrasts are eliminated, resulting in effective illumination for libraries and laboratories as well as classrooms. Luma-Ceilings may be installed over an entire ceiling area in either new or existing buildings.

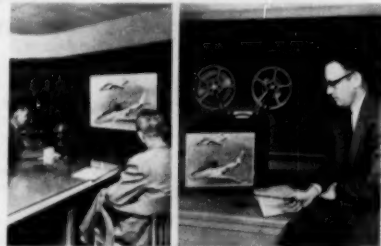
An auxiliary spun-glass acoustical baffle may be added for installations requiring sound absorption. The Luma-Ceiling acoustical baffle may be installed with the original installation or as the need arises. The corrugated plastic is inserted and removed from the bottom of the ceiling. **Pittsburgh Reflector Co., 410 Oliver Bldg., Pittsburgh 22, Pa.** For more details circle #765 on mailing card.

(Continued on page 143)

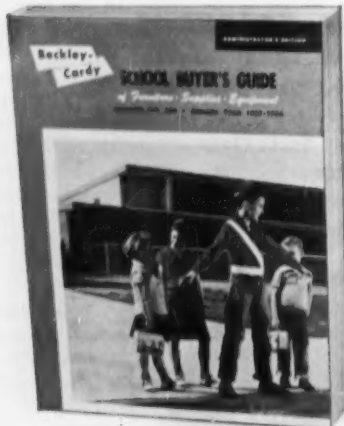
Sound Projector for Lighted Rooms

Films can be shown in lighted rooms, or rooms hard to darken, with the new TSI-Duolite Sound Projector. The 16 mm unit features a built-in screen permitting daylight viewing of either color or black and white films. The same projector can be used for regular projection on any standard type screen.

Films can be shown in a standard sized classroom on the Duolite Projector without darkening. It can be used for desk-top projection in teacher meetings, administrative sessions and reviewing new films. The new unit is extremely portable and can be quickly set up for any use. Each projector has a standard



2 inch lens for standard projection and a wide angle lens for use with the self-contained screen. **Technical Service, Inc., 30865 Five Mile Road, Livonia, Mich.** For more details circle #766 on mailing card.



ORDER EARLY from this complete, easy-to-use **BUYERS GUIDE.** Avoid last minute rush!

If you do not have your 1955-1956 Catalog, write today for Catalog No. 100.



New, Modern Facilities to Serve You Better, Faster, at

5000 Ways to Solve School Problems —



BECKLEY-CARDY COMPANY
1900 NORTH NARRAGANSETT
CHICAGO 39, ILLINOIS

Cleaning costs too high?

Switch to F-100

Your clue to cutting maintenance - cleaning costs is the labor factor - since it equals about 90% of costs! "Bargain" cleaners are no cure, for they increase labor. The answer: Wyandotte F-100,® an all-purpose cleaner for walls, floors, painted surfaces that reduces rub and scrub to the minimum. It's so easy to use, and dissolves grease and grime so quickly, that maintenance men have made F-100 the world's largest-selling building - maintenance cleaner! Call your Wyandotte jobber for a demonstration.

 **Wyandotte CHEMICALS**



...before it TALKS

...is the way our doctors put it - "Our chances of curing cancer are so much better when we have an opportunity to detect it *before it talks*."

That's why we urge you to have periodic health check-ups that *always* include a thorough examination of the skin, mouth, lungs and rectum and, in women, the breasts and generative tract. Very often doctors can detect cancer in these areas long before the patient has noticed any symptoms.

For more life-saving facts phone the American Cancer Society office nearest you, or write to "Cancer" - in care of your local Post Office.

American Cancer Society

What's New ...

100 Cup Coffee Maker for Range Top Use

The new Wear-Ever coffee maker is designed to be used on the top of the range. Made of hard aluminum alloy which resists dents and scratches, it has a capacity of 100 cups of coffee. It is equipped with a coffee bag and ring and has a non-drip, self-closing faucet.



Two cool bakelite handles make it easy to lift the unit and the smooth aluminite finish resists finger marks and stains.

The unit can be used as a dispenser for iced coffee, iced and hot tea, fruit juices and other beverages. Coffee may be kept at serving temperature by placing the coffee maker on low heat on a range. A Wear-Ever urn cup with a four quart capacity is available as a companion piece to the new coffee maker. The Aluminum Cooking Utensil Co., Inc., New Kensington, Pa.

For more details circle #267 on mailing card.

Table Top Collators Feature Ejectomatic Feed

Patented Ejectomatic Feed, tilted bins, ball bearing mechanisms and other refinements previously available only on large floor models are now available in the new 5 page and 8 page Thomas Table Top Collators. The new units are light in weight, portable and compact, occupying only 16 by 27 inches of desk space. They speed operation and are ready to go to work without set-up time. Thomas Collator Co., 30 Church St., New York 7.

For more details circle #268 on mailing card.

Vacuum Attachment for Dust Absorption

The "Atlas Floor-Vac" is a vacuum attachment unit that immediately absorbs dust and prevents it from settling elsewhere, eliminating the need for primary and secondary sweeping. The new unit is available with a line of accessory dusting and cleaning tools, all of which are designed for Atlas Heavy Duty Floor-master Machines. The "Atlas Floor-Vac" may also be used with accessory equipment. Atlas Floor Surfacing Machine Corp., 248 E. 34th St., New York 16.

For more details circle #269 on mailing card.

(Continued on page 144)



A system of multi-purpose movable steel wardrobe racks with either a chalkboard (blackboard) or a corkboard (bulletin board for pictures, maps, etc.) back. These sturdy, welded furniture steel units provide: (1) Means for holding coats, hats, overshoes and lunch boxes in an efficient and orderly manner; (2) Chalkboards or corkboards to aid class instruction; (3) Efficient, large capacity, space-saving wardrobe units, that go wherever needed, fit any space, and permit complete flexibility in room arrangement.



NO. CH-400 CHALKROBE
42" long, 25" deep, 6 1/2" high on glides for 4" high on casters. Hat shelves and hanger bars are adjustable for height—accommodate every age group—(Hold 16 with coat hangers or 24 with coat hooks.) Off-floor shelf for overshoes and 90" x 48" chalkboard.

NO. CO-400 CORKROBE same as No. CH-400 but with corkboard back.



WALLMOUNT WARDROBE RACKS—Mount permanently on any wall. Shelves adjustable for height in 2" steps (accommodate any age group). Hold 4 spaced coat hangers or 6 coat hooks per running foot. Units interlock to make continuous rack of any length.

No. AW-3 Wallmount Coat and Hat Rack 32" long
No. AW-4 Wallmount Coat and Hat Rack 42" long

WALLMOUNT OVERSHOE RACKS—Mount on wall at floor level... extend 11 1/2" out from wall. Interlock to make rack of any length.
No. B-3 Wallmount Overshoe Rack 32" long
No. B-4 Wallmount Overshoe Rack 42" long



Checker
This 8 ft. double faced rack holds 50 coats and hats. Goes wherever needed—on large casters.

Checkerette
Ideal rack for choir robes or acolyte. Knocks down and stores like a folding chair.

© Vogel-Peterson Trade Mark



Write for Bulletin sl-25

VOGEL-PETERSON CO.

1127 West 37th Street • Chicago 9, Illinois

What's New ...

Tablet-Arm Chair Has Sturdy Writing Area

A double tube front arm support ensures a stable, vibration-free writing area



on the new Westmoreland No. 182 and 183 TABR Tablet-Arm Chairs. The chair has tubular steel and plywood construction for strength and comfort. The wide leg spread minimizes tipping and protects walls. A large open book compartment under the seat provides ample room for all needs. Rigid frame construction is assured by the extra welded support member under the rear of the seat.

The new chair is posture engineered for comfort and is made in sizes for high school and college classrooms. Tops,

seats and backs are of solid hard maple with tablet arm also available in 13 ply plastic which is waterproof, scratch resistant and printproof. All joints are bronze-welded for strength and durability. Metal parts are finished in taupe, turquoise, coral, blue or nickel chrome for bright, cheerful classrooms. Westmoreland Seating, Div. of Westmoreland Metal Mfg. Co., Milnor St. & Bleigh Ave., Philadelphia 35, Pa.

For more details circle #970 on mailing card.

Tubular Steel Bleacher Is Easily Assembled

No nuts and bolts are required to assemble the new Sico tubular steel bleacher. The new 2600 Bleacher is extremely portable as the use of tubular steel scaffolding design eliminates excess weight. The welded frames are interlocked by built-in coupling pins, thereby speeding and simplifying assembly.

Sico's patented "Speedlock" ties frames and sway braces into an integral unit, eliminating nuts and bolts and proving instant, safe locking of all supports. Seat and foot boards are securely fastened to the structure without bolting. The grandstand can be used indoors or out and has been tested for both load and sway. Sico Grandstands, Inc., 3565 Wooddale Ave., Minneapolis 16, Minn.

For more details circle #971 on mailing card.

(Continued on page 145)

Specialist Tape Recorder Has Three Motors

Featuring the "Miracle 2000" sound system, the Specialist portable tape recorder produces realism in sound reproduction. The use of three separate motors assures a constant, uniform speed and results in faster forward and rewind operations.

The Specialist is suitable for training voice, music and speech students and for the teaching of a foreign language. For increased volume in auditoriums or



large classrooms, the recorder may be played through external speakers or it may be used as a PA system. Bell & Howell Co., 7100 McCormick Rd., Chicago 45.

For more details circle #972 on mailing card.

BUILD Charm

INTO YOUR SCHOOLS...

**as you lower costs with
safe, long-lasting timbers**

Here is school construction of forthright simplicity and unaffected natural charm. Four-inch thick Tim-Deck of beautiful Western Red Cedar is applied directly to glulam timber girders, eliminating closely spaced joists and supplying sheathing, insulation and ceiling finish all in one fast, labor-saving application. With the timber columns supporting the roof load, relatively light and inexpensive outer walls are adequate, giving further economy to the building.

For data on other cost-saving timber applications, see your Timber Structures, Inc. representative, or write for booklet, "Modern Functional Schools". It is free upon request.

Cafeteria of Centerline High School, Centerline, Mich., is 66'-8" x 62'-4". Glulam timber girders resting upon glulam columns are spaced at 12'. Architects: Brender & Van Royer, Detroit; Atkin-Ford Co., Detroit, is general contractor.

TIMBER STRUCTURES, INC.

P. O. BOX 3782-H, PORTLAND 8, OREGON

Offices in Ramsey, N. J.; Garden City, N.Y.; Chicago; Ferndale, Mich.; Kansas City; St. Louis; Minneapolis; Boston; Columbus; Des Moines; Decatur; Wichita; Dallas; Houston; Birmingham; Charlotte; Memphis; West Hartford; Seattle; Spokane; Denver.

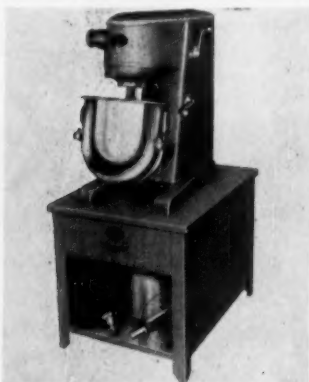
TIMBER STRUCTURES, INC. OF CALIFORNIA • Richmond, California

Local Representatives throughout the United States and Canada

What's New ...

Portable Mixer for Institutional Use

A tilted bowl to simulate hand whipping is a feature of the new type "N" 12 quart Portable Mixer. Changes of speed without stopping are possible with the new mixer through the Variable Speed Drive and the single lever control simplifies operation. A ball-bearing thrust attachment hub increases the rate of production of the attachment which converts the mixer for food chopping.



The new floor model features a storage type cabinet stand. **Triumph Manufacturing Co., 3400 Spring Grove Ave., Cincinnati 25, Ohio.**

For more details circle #973 on mailing card.

Colorlith Sheet Material for Table Tops

Developed for table tops in kitchens, laboratories, machine shops and other areas requiring protective finishes, Colorlith is a new sheet material which is available in charcoal gray and cameo brown. It is basically a mixture of Portland cement and asbestos fibers and resists heat, impact and most types of active chemicals. The surface can be polished to a high degree of smoothness yet retains a soft textured appearance which prevents glare. No protective coating is needed under normal conditions.

Colorlith has high resistance to physical abuse. It is fabricated with metal working tools to drill, rout, mill and otherwise machine the sheets. Surfaces and edges are smooth and require little additional polishing. It is supplied in sheets 48 by 96 inches in thicknesses of 1/4, 3/8, 1/2, 3/4, 1 and 1 1/4 inches. **Johns-Manville, 22 E. 40th St., New York 16.**

For more details circle #974 on mailing card.

Colored Cups and Plates in Dixie Star-Flower Design

A distinctive new design is offered in Dixie cold drink and hot drink cup items and Dixie plate packages. The Brilliant Star-Flower design is available in new hues of red, green, yellow and

blue for cheerful and bright table arrangements for special groups and for general use. The highly styled line offers matching paper cups and plates. The de-



sign was adopted after months of research and pre-testing. **The Dixie Cup Company, Easton, Pa.**

For more details circle #975 on mailing card.

Outdoor Incinerator for Institutional Waste

Alsto Model CP is a new outdoor incinerator with a twelve bushel capacity which reduces refuse to a fine ash. Requiring no watching, the new unit was especially developed to provide safe outdoor disposal for institutional waste. **Alsto Co., 4007 Detroit Ave., Cleveland 13, Ohio.**

For more details circle #976 on mailing card.

(Continued on page 146)

mobile efficiency and comfort

...engineered for durability



- A 3316-S17-B2, tablet 13x17"
- B 6340-S7-H19, tablet 12x23"
- C 6701-S7, tablet 12x23"

Write us your needs. We will send you full illustrative material.

THONET INDUSTRIES INC., DEPT. G7

One Park Avenue, New York 16, N. Y.

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THONET
INDUSTRIES INC.

What's New ...

Micro-Projector Is Simple in Operation

True-color microscope specimens are easily projected for group study with



the new SpeedMatic Micro-Projector. It operates as simply as an ordinary slide projector without the necessity for lens changing, condenser focusing or arc lamp adjustments. It produces clear images and can be operated by anyone with a few minutes of instruction. The carbon light system is designed to give a full hour of uninterrupted, dependable uniform illumination once the carbons have been clipped into position. The Electronic-Feed Illuminator is almost completely automatic, permitting the op-

erator to concentrate on the material.

The new model provides a practical range of magnification for instruction, demonstration and observation and affords versatility in choice of magnifications and field of view. The built-in mechanical stage permits precise positioning of the specimen. **Bausch & Lomb Optical Co., Rochester 2, N.Y.**

For more details circle #977 on mailing card.

Oakite Highlite for Cleaning Food Equipment

Oakite Highlite is a new cleaner for use in the food service departments of institutions. Combining acidic and abrasive properties in one material, Oakite Highlite removes residues and corrosion from stainless steel and copper equipment and is effective in delaying the retarnishing of surfaces. **Oakite Products, Inc., 19 Rector St., New York 6.**

For more details circle #978 on mailing card.

Safety and Ease are Features of Exerglide

A new model of the Exerglide recreation equipment has been introduced for additional safety in use. A cage type seat frame prevents falling and jumping through front or back of this swing type play equipment. Children and adults propel the swing by pulling and pushing

on the conveniently placed handles.

The Exerglide is made to order for all types of frames and is available in junior and senior sizes. It is now also available in a take-down type in the senior models. Sections telescope and are quickly attached or detached by means of two bolts. There is no side sway and no twist with the Exerglide swing, and no chain breakage or jerking. It is a popular playground or indoor rec-



reation device offering healthy and safe exercise and play. **Earl H. Hurley Associates, 162 Maple Ave., Corry, Pa.**

For more details circle #979 on mailing card.

(Continued on page 147)

new free tile booklet

American-Olean Tile Co.



shows how to plan for
lower maintenance costs

Keeping your school clean and attractive, in spite of careless pupils and low budgets, is a major problem. Ceramic tile gives you an ideal solution.

This new 24-page booklet shows many full color photos of outstanding schools, and gives numerous planning suggestions and specifications.

Send for your free copy today!

AMERICAN-OLEAN TILE CO.
1119 Cannon Ave., Lansdale, Pa.

Please send me a free copy of Booklet 600.

Name _____

Firm _____

Address _____

City _____ Zone _____ State _____

SCHOOL INCINERATOR

—Pays for Self in 6 to 12 Months

—Burns Wet or Dry Refuse

Winnen School Incinerators save more than their cost in refuse hauling charges within the first six to twelve months, according to thousands of satisfied users. Burn wet or dry refuse, or mixed. Choice of fuels. No fuel needed to burn dry refuse. Oversize feed doors permit you to feed crates and boxes without breaking them up. Choice of double feed doors or Guillotine type shown here.

Winnen Incinerators can be installed indoors or out, take up little space. Grates are heavy gray-iron castings. You never have to "fish out" cans or non-combustibles through the feed doors. The grates dump completely. Combustion chamber is lined with heavy refractory material, shell is heavy galvanized steel. Optional equipment is available, such as prefab chimney, automatic fuel control, etc.

Two styles. The Model C is available in 4, 10, 15, 20 or 30 bushel sizes. It is ideal for burning refuse that is free from smoke and odors. The Model C-2 is available in four sizes and is equipped with a secondary combustion chamber for smokeless and odorless operation. Ideal for use in or near municipalities where all smoke and odor must be eliminated, the Model C-2 conforms to the most rigorous building codes everywhere. Fully Guaranteed.

Winnen Incinerators are shipped knocked down with complete, easy-to-follow directions for installing. Any handy man can set up a Wincinator quickly. No mason needed. Easy to relocate later if you wish.

Send for literature and prices. No obligation. Use the inquiry card or write today to: **Winnen Incinerator Co., 932 Broadway, Bedford 27, Ohio.**



Model C-10
No fuel needed for dry
refuse

What's New ...

Product Literature

• The entire **Stacor line of Lifetime Steel Equipment** is illustrated and described in the new revised 1955 catalog brought out by Stacor Equipment Co., 768-788 E. New York Ave., Brooklyn 3, N.Y. The 20 page catalog shows how the drafting and filing equipment is adaptable to specific needs, and specifications are given for each piece of equipment.

For more details circle #980 on mailing card.

• Luminous ceilings in offices, classrooms, libraries and other areas are illustrated in a booklet released by the Bakelite Company, Dept. J-852, 300 Madison Ave., New York 17. Economy, design flexibility and new ways to increase lighting efficiency are discussed in the brochure which is entitled "**Luminous Ceilings Made With Bakelite Rigid Vinyl Sheets.**" Uniform light transmission, safety, maintenance and low cost are some of the other subjects covered in the colorful brochure.

For more details circle #981 on mailing card.

• Wayne's "**Off Season Buying Plan**" for Wayne Type H Portable Grandstands offers important savings, according to an announcement recently received. Wayne Type H Portable Grandstands are built for comfort, safety, visibility and appearance in either 15 foot

sections or as continuous stands, in elevated or non-elevated construction. Information on the buying plan, offering price advantages for orders placed now, is available from Wayne Iron Works, 147 N. Pembroke Ave., Wayne, Pa.

For more details circle #982 on mailing card.

• Three experimental cookery studies in quantity food preparation were sponsored by the Evaporated Milk Association, 228 N. La Salle St., Chicago 1. A collection of "**Tested Recipes for 50 and 100 Servings**" is the result of the most recent study and is available without cost to those concerned with quantity food production. The recipes were developed by Fern W. Gleiser and Alice F. Teasdale, institution economics and management, School of Business, University of Chicago. In developing the recipes attention was given to cost of ingredients, amount of labor and equipment required.

For more details circle #983 on mailing card.

• An attractive, colorful catalog has been prepared on "**The Recreation Line**" manufactured by Recreation Equipment Corp., Anderson, Ind. Catalog No. 21 gives specifications and descriptive information on the heavy duty line of playground, swimming pool and basketball equipment. Photographs and line drawings picture the equipment described in the 40 page booklet.

For more details circle #984 on mailing card.

• A **Manual on Daily Maintenance of Public Washrooms** has been announced by Huntington Laboratories, Inc., Huntington, Ind. The brief, easy-to-follow manual was designed especially for schools and hospitals. In addition to a step by step daily schedule chart, a maintenance schedule for weekly washroom care is also included.

For more details circle #985 on mailing card.

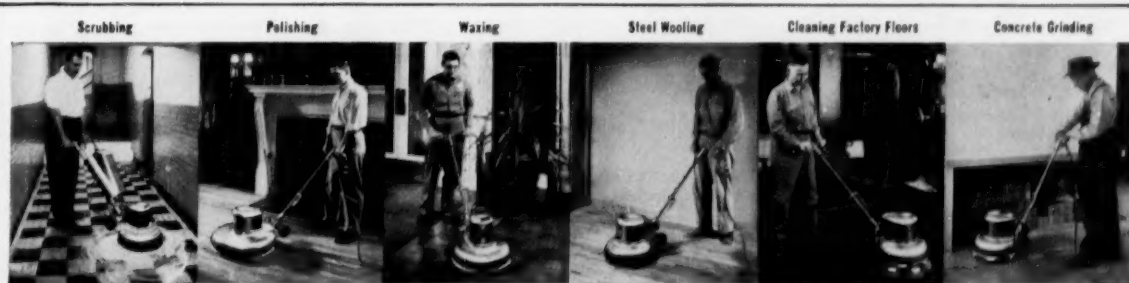
• A progress report on the audio-visual-equipped classroom has been released by the Herman Nelson Div., American Air Filter Co., 215 Central Ave., Louisville 8, Ky. Entitled "**We're Getting There,**" the report explains how the Light/Stop accessory to the Herman Nelson Draft-Stop Unit Ventilator is another step towards the perfect audio-visual room.

For more details circle #986 on mailing card.

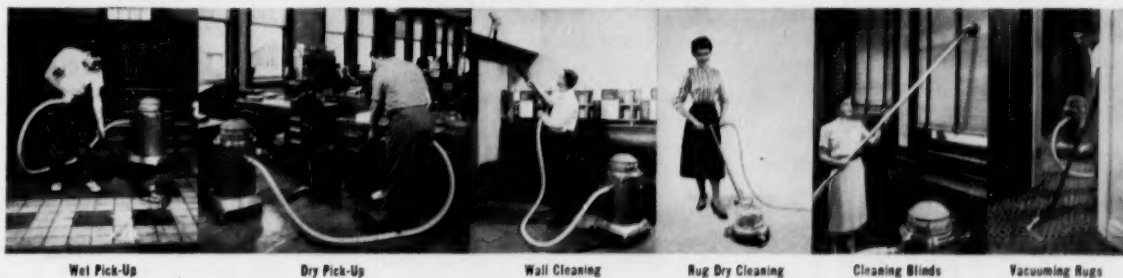
• "**Almost Anything for the Swimming Pool**" is the slogan given on the new Catalog No. 31 of Halogen Pool Engineering, Supplies and Equipment. Issued by Halogen Supply Co., Inc., 4653 W. Lawrence Ave., Chicago 30, the 28 page catalog describes and illustrates filter installations by Halogen, chemicals and purifying equipment, chlorinating equipment, diving boards and accessories, maintenance equipment, swimming pool paints, locker room equipment, lighting and other equipment and supplies.

For more details circle #987 on mailing card.

(Continued on page 148)



American Machines Save Dollars For Management ... Are Easiest To Use, Do More Work For You!



You'll be amazed at the difference in dollars saved, work saved, with the NEW No. 1 floor maintenance machine line ... all-new American Machines for any floor, any rug, any budget! Ask for an on-the-job demonstration at no cost or obligation. Write ...

PERFORMANCE PROVED MAINTENANCE MACHINES ... WORLD-WIDE SALES AND SERVICE

THE AMERICAN
FLOOR SURFACING MACHINE CO.
ESTABLISHED 1903

548 S. St. Clair St., Toledo 3, Ohio

What's New ...

Micro-Projector Is Simple in Operation

True-color microscope specimens are easily projected for group study with



the new SpeedMatic Micro-Projector. It operates as simply as an ordinary slide projector without the necessity for lens changing, condenser focusing or arc lamp adjustments. It produces clear images and can be operated by anyone with a few minutes of instruction. The carbon light system is designed to give a full hour of uninterrupted, dependable uniform illumination once the carbons have been clipped into position. The Electronic-Feed Illuminator is almost completely automatic, permitting the op-

erator to concentrate on the material.

The new model provides a practical range of magnification for instruction, demonstration and observation and affords versatility in choice of magnifications and field of view. The built-in mechanical stage permits precise positioning of the specimen. **Bausch & Lomb Optical Co., Rochester 2, N.Y.**

For more details circle #977 on mailing card.

Oakite Highlite for Cleaning Food Equipment

Oakite Highlite is a new cleaner for use in the food service departments of institutions. Combining acidic and abrasive properties in one material, Oakite Highlite removes residues and corrosion from stainless steel and copper equipment and is effective in delaying the retarnishing of surfaces. **Oakite Products, Inc., 19 Rector St., New York 6.**

For more details circle #978 on mailing card.

Safety and Ease are Features of Exerglide

A new model of the Exerglide recreation equipment has been introduced for additional safety in use. A cage type seat frame prevents falling and jumping through front or back of this swing type play equipment. Children and adults propel the swing by pulling and pushing

on the conveniently placed handles.

The Exerglide is made to order for all types of frames and is available in junior and senior sizes. It is now also available in a take-down type in the senior models. Sections telescope and are quickly attached or detached by means of two bolts. There is no side sway and no twist with the Exerglide swing, and no chain breakage or jerking. It is a popular playground or indoor rec-



reation device offering healthy and safe exercise and play. **Earl H. Hurley Associates, 162 Maple Ave., Corry, Pa.**

For more details circle #979 on mailing card.

(Continued on page 147)

new free tile booklet

American-Olean Tile Co.



shows how to plan for
lower maintenance costs

Keeping your school clean and attractive, in spite of careless pupils and low budgets, is a major problem. Ceramic tile gives you an ideal solution.

This new 24-page booklet shows many full color photos of outstanding schools, and gives numerous planning suggestions and specifications.

Send for your free copy today!

AMERICAN-OLEAN TILE CO.
1119 Cannon Ave., Lansdale, Pa.

Please send me a free copy of Booklet 600.

Name _____

Firm _____

Address _____

City _____ Zone _____ State _____

SCHOOL INCINERATOR

—Pays for Self in 6 to 12 Months

—Burns Wet or Dry Refuse

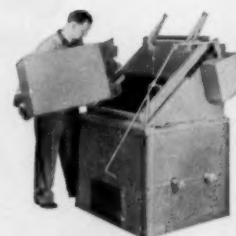
Winnen School Incinerators save more than their cost in refuse hauling charges within the first six to twelve months, according to thousands of satisfied users. Burn wet or dry refuse, or mixed. Choice of fuels. No fuel needed to burn dry refuse. Oversize feed doors permit you to feed crates and boxes without breaking them up. Choice of double feed doors or Guillotine type shown here.

Winnen Incinerators can be installed indoors or out, take up little space. Grates are heavy gray-iron castings. You never have to "fish out" cans or non-combustibles through the feed doors. The grates dump completely. Combustion chamber is lined with heavy refractory material, shell is heavy galvanized steel. Optional equipment is available, such as prefab chimney, automatic fuel control, etc.

Two styles. The Model C is available in 4, 10, 15, 20 or 30 bushel sizes. It is ideal for burning refuse that is free from smoke and odors. The Model C-2 is available in four sizes and is equipped with a secondary combustion chamber for smokeless and odorless operation. Ideal for use in or near municipalities where all smoke and odor must be eliminated, the Model C-2 conforms to the most rigorous building codes everywhere. Fully Guaranteed.

Winnen Incinerators are shipped knocked down with complete, easy-to-follow directions for installing. Any handy man can set up a Wincinator quickly. No mason needed. Easy to relocate later if you wish.

Send for literature and prices. No obligation. Use the inquiry card or write today to: **Winnen Incinerator Co., 932 Broadway, Bedford 27, Ohio.**



Model C-10
No fuel needed for dry
refuse

What's New ...

Product Literature

• The entire Stacor line of Lifetime Steel Equipment is illustrated and described in the new revised 1955 catalog brought out by Stacor Equipment Co., 768-788 E. New York Ave., Brooklyn 3, N.Y. The 20 page catalog shows how the drafting and filing equipment is adaptable to specific needs, and specifications are given for each piece of equipment.

For more details circle #980 on mailing card.

• Luminous ceilings in offices, classrooms, libraries and other areas are illustrated in a booklet released by the Bakelite Company, Dept. J-852, 300 Madison Ave., New York 17. Economy, design flexibility and new ways to increase lighting efficiency are discussed in the brochure which is entitled "Luminous Ceilings Made With Bakelite Rigid Vinyl Sheets." Uniform light transmission, safety, maintenance and low cost are some of the other subjects covered in the colorful brochure.

For more details circle #981 on mailing card.

• Wayne's "Off Season Buying Plan" for Wayne Type H Portable Grandstands offers important savings, according to an announcement recently received. Wayne Type H Portable Grandstands are built for comfort, safety, visibility and appearance in either 15 foot

sections or as continuous stands, in elevated or non-elevated construction. Information on the buying plan, offering price advantages for orders placed now, is available from Wayne Iron Works, 147 N. Pembroke Ave., Wayne, Pa.

For more details circle #982 on mailing card.

• Three experimental cookery studies in quantity food preparation were sponsored by the Evaporated Milk Association, 228 N. La Salle St., Chicago 1. A collection of "Tested Recipes for 50 and 100 Servings" is the result of the most recent study and is available without cost to those concerned with quantity food production. The recipes were developed by Fern W. Gleiser and Alice F. Teasdale, institution economics and management, School of Business, University of Chicago. In developing the recipes attention was given to cost of ingredients, amount of labor and equipment required.

For more details circle #983 on mailing card.

• An attractive, colorful catalog has been prepared on "The Recreation Line" manufactured by Recreation Equipment Corp., Anderson, Ind. Catalog No. 21 gives specifications and descriptive information on the heavy duty line of playground, swimming pool and basketball equipment. Photographs and line drawings picture the equipment described in the 40 page booklet.

For more details circle #984 on mailing card.

• A Manual on Daily Maintenance of Public Washrooms has been announced by Huntington Laboratories, Inc., Huntington, Ind. The brief, easy-to-follow manual was designed especially for schools and hospitals. In addition to a step by step daily schedule chart, a maintenance schedule for weekly washroom care is also included.

For more details circle #985 on mailing card.

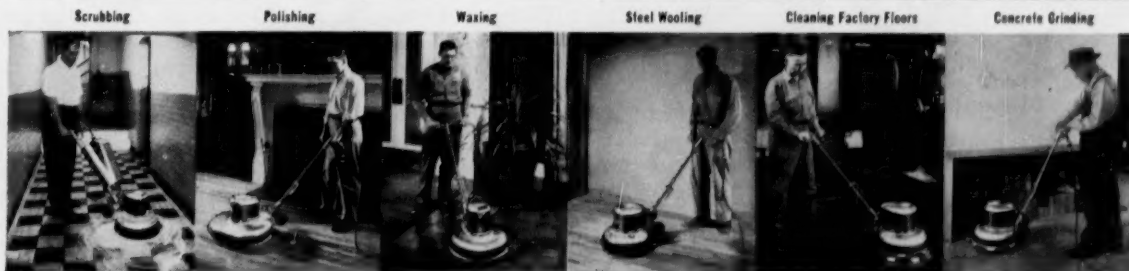
• A progress report on the audio-visual-equipped classroom has been released by the Herman Nelson Div., American Air Filter Co., 215 Central Ave., Louisville 8, Ky. Entitled "We're Getting There," the report explains how the Light/Stop accessory to the Herman Nelson Draft-Stop Unit Ventilator is another step towards the perfect audio-visual room.

For more details circle #986 on mailing card.

• "Almost Anything for the Swimming Pool" is the slogan given on the new Catalog No. 31 of Halogen Pool Engineering, Supplies and Equipment. Issued by Halogen Supply Co., Inc., 4653 W. Lawrence Ave., Chicago 30, the 28 page catalog describes and illustrates filter installations by Halogen, chemicals and purifying equipment, chlorinating equipment, diving boards and accessories, maintenance equipment, swimming pool paints, locker room equipment, lighting and other equipment and supplies.

For more details circle #987 on mailing card.

(Continued on page 148)



**American Machines Save Dollars For Management
... Are Easiest To Use, Do More Work For You!**



Wet Pick-Up

Dry Pick-Up

Wall Cleaning

Rug Dry Cleaning

Cleaning Blinds

Vacuuming Rugs

You'll be amazed at the difference in dollars saved, work saved, with the NEW No. 1 floor maintenance machine line ... all-new American Machines for any floor, any rug, any budget! Ask for an on-the-job demonstration at no cost or obligation. Write ...

PERFORMANCE PROVED MAINTENANCE MACHINES ... WORLD-WIDE SALES AND SERVICE

THE AMERICAN®
FLOOR SURFACING MACHINE CO.
ESTABLISHED 1903

548 S. St. Clair St., Toledo 3, Ohio

What's New ...

• The 1955 catalog of Moore Gymwear is available from E. R. Moore Co., 932 W. Dakin St., Chicago 13. The attractive 16 page catalog colorfully pictures and describes the line and actual swatches of different materials are included.

For more details circle #988 on mailing card.

• "Flexibility in the Co-Ordinated Classroom" is the title of an informative booklet available from The E. F. Hauserman Company, 7507 Grant Ave., Cleveland 5, Ohio. The report, prepared by Darell Boyd Harmon & Associates for The Hauserman Company, is printed in text form with attractive line drawings illustrating the points made. The subject of school interior flexibility and its impact on the psychological and physical environment of the child is discussed as is the possible solution to the problem of achieving permanent interior flexibility through the application of movable steel partitions designed expressly for school applications.

For more details circle #989 on mailing card.

• Its complete line of folding, portable tables for schools is described in an eight page brochure released by Sico Mfg. Co., Inc., 6045 Pillsbury Ave. S., Minneapolis 19, Minn. Also included is an explanation of the Sico System of cafeteria seating.

For more details circle #990 on mailing card.

• School building upkeep and repair requirements are discussed in a new maintenance chart brought out by The Monroe Co., Inc., 10703 Quebec, Cleveland 6, Ohio. Chart 1084 lists a wide variety of maintenance problems which are cross indexed to specific products which can be used to solve these problems.

For more details circle #991 on mailing card.

• A new brochure entitled "Window Glazing With Plexiglas" has been released by Rohm & Haas Co., Washington Square, Philadelphia 5, Pa. The 16 page brochure discusses the various properties, characteristics and uses of Plexiglas and pictures some typical installations.

For more details circle #992 on mailing card.

• "Solving Roofing Problems," a new brochure released by The Tremco Mfg. Co., 8701 Kinsman Rd., Cleveland 4, Ohio, will be of interest to maintenance men. Illustrated by photographs, drawings and diagrams, the 32 page brochure is divided into 15 sections and provides a table of contents to facilitate reference.

For more details circle #993 on mailing card.

• The application of modern engineering design to the problem of record room layout to give maximum filing capacity is discussed in a new folder issued by Visi-Shelf File, Inc., 105 Reade St., New York 13. How Visi-Shelf files accomplish maximum use of filing space is the interesting story told. Illustrations show actual operation of the equipment for many requirements.

For more details circle #994 on mailing card.

• "Foamglas in Thin Wall and Sandwich Panel Construction" is discussed in a new brochure brought out by Pittsburgh Corning Corp., 1 Gateway Center, Pittsburgh 22, Pa. Photographs and details of important projects utilizing this technic, including fabrication and job data, are also contained in the 12 page brochure.

For more details circle #995 on mailing card.

• Hundreds of color harmonies are offered in the "Color Harmonizer," a new book designed as a guide to the use of color. Full page color chips of the 100 standard and intermix colors available in Quali-Kote are shown with two harmonizing colors readily visible for evolving decorative schemes. Designed to provide practical assistance in the development of color schemes, the booklet is available from The Sherwin-Williams Co., Painter-Maintenance Div., 101 Prospect Ave., N. W., Cleveland 1, Ohio.

For more details circle #996 on mailing card.

Film Releases

Children of our World series: "Mooti... Child of New India," for social studies classes in junior high school, 14 minutes, 16 mm., sound, color or black and white, and "Ali and His Baby Camel," for elementary grades, 11 minutes, 16 mm., sound, color or black and white. Atlantis Productions, Inc., P. O. Box 8666, Hollywood 46, Calif.

For more details circle #997 on mailing card.

Beyond the Yukon, a series of five films: "Arctic Seal Hunt," "Fishing Arctic Style," "Next Door to Siberia," "Nomads of the North" and "Tigera—Ageless City of the Arctic," each 12 minutes, color or black and white. Bailey Films, Inc., 6509 De Longpre Ave., Hollywood 28, Calif.

For more details circle #998 on mailing card.

"Puritan Family of Early New England," "Colonial Life in New England," "Colonial Life in the Middle Colonies" and "Colonial Life in the South," all for history classes at intermediate level, 16 mm., sound, color or black and white. Coronet Films, 65 E. South Water St., Chicago 1.

For more details circle #999 on mailing card.

"10,000 Feet Deep," 20 minutes, 16 mm., black and white, sound, "Pipeline," 24 minutes, 16 mm., color, sound, and "Oil For Aladdin's Lamp," 20 minutes, 16 mm., black and white, sound, all part of a series on petroleum in the service of modern living. Shell Oil Co., 50 W. 50th St., New York 20.

For more details circle #1000 on mailing card.

"Using and Understanding Numbers," a series of 6 filmstrips for second grade children: "Using and Understanding Numbers by 2's, 3's, 4's and 5's," "Advancing in Simple Addition," "Advancing in Simple Subtraction," "Using and Understanding Multiplication—Objects

and Symbols," "Using and Understanding Division—Objects and Symbols" and "Using and Understanding the Calendar." "Be Healthy, Go Safely—the Intermediate Way," a series of 7 filmstrips for intermediate grade health and safety curricula: "A Right Breakfast," "We Have You Covered (The Common Cold)," "Tale of a Toothache," "You're on Parade (Good Grooming)," "Be a Better Pedal Pusher," "Happy Hollow Makes the Honor Roll (School Safety)" and "Safe Home—Safe Living," color with captions. Society For Visual Education, Inc., 1345 Diversey Pkwy., Chicago 14.

For more details circle #1001 on mailing card.

Suppliers' News

Mills Industries, Incorporated, manufacturer of ice cream production and storage equipment, announces removal to a new plant at 4235 W. North Ave., Chicago 39.

Mississippi Glass Company, 88 Angelica St., St. Louis 7, Mo., manufacturer of heat absorbing and glare reducing Coolite Glass, announces removal of its New York office from 200 Fifth Ave. to the Chanin Bldg., 122 E. 42nd St., New York 17.

Neumade Products Corp., manufacturer of film accessory equipment, announces removal of its home office from 330 W. 42nd St., New York 18, to new and larger quarters in the Fisk Bldg., 250 W. 57th St., New York 19. The new office facilities will enable the company to give more efficient service.

Pillsbury Mills, Inc., Minneapolis 2, Minn., manufacturer of flour and premixed flour products, announces the formation of an institutional division with a separate sales force, expanded product line and increased services. Premixed baking products for the institutional market will be offered in packages for quantity food service.

The Wakefield Company is the new corporate name announced by the manufacturer of lighting equipment formerly known as The F. W. Wakefield Brass Company, Vermilion, Ohio. There is no change in location or personnel. The new corporate name was chosen because the company uses practically no brass in its modern operations, and the founder, F. W. Wakefield, has long been deceased.

Welbilt Corporation, 57-18 Flushing Ave., Maspeth, Long Island, N.Y., has merged with Detroit-Michigan Stove Company, 6900 E. Jefferson Ave., Detroit 31, Mich., manufacturer of Garland cooking equipment. The newly formed company will be known as Welbilt Corporation. The Detroit Division will continue its operations at the two present plants and sales and distributing organizations of both companies will be maintained.

PRODUCT INFORMATION

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050 Alexander Brilleaux Water Control Co.	069 "Adon Floor-Vac" Adon Floor Surfacing Machinery Corp.	087 Catalog No. 51 Nalogen Supply Co., Inc.
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053 Rota Desk Recliner-Cady Co.	072 Specialist Tape Recorder Bell & Howell Co.	090 Folding, Portable Tables Eco Mfg. Co., Inc.
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At last a
flexible lighting system
to meet all the
needs of modern
classrooms

WAKEFIELD

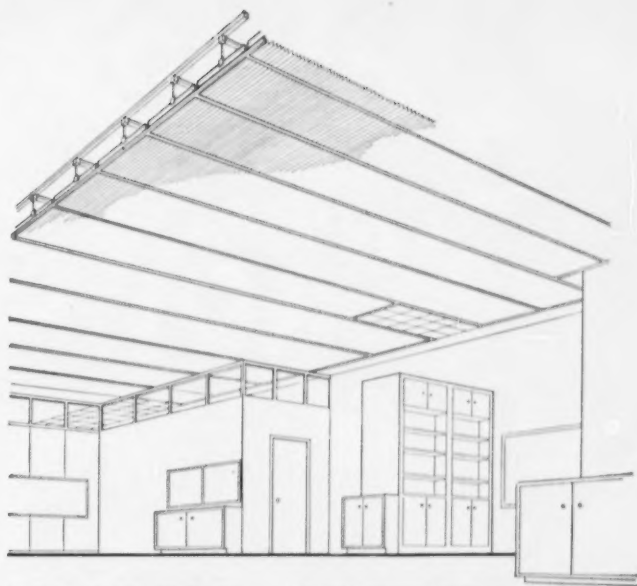
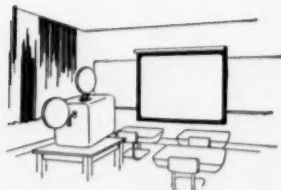


PHOTO-METRICS

GIVE THE ROOM PLANNER COMPLETE CONTROL OF THE LIGHT-DISTRIBUTION PATTERN REGARDLESS OF THE SIZE, SHAPE OR IRREGULARITY OF THE ROOM.

NO SIDE WALL CONTACT. Unlike standard luminous ceilings, Wakefield Photo-Metrics can be up to 30 inches from the side walls without affecting the light-distribution pattern. This saves the cost of exact fitting of diffusers and grids to walls, to structural members or to special equipment.

IRREGULAR PERIMETERS NO PROBLEM. In addition to pre-planned and packaged Photo-Metrics for standard rectangular classrooms, minimum Design Units in 3'x4', 3'x6' and 3'x8' are available. Thus alcoves and other special areas are no problem. The designer can lay out his Photo-Metrics to follow the perimeter of his classroom, even carrying the diffuser over the tops of movable walls.

SELECTIVE SWITCHING FOR AUDIO-VISUAL. "Dim-outs" rather than black-outs are needed for classroom projection. To reduce room brightness to screen brightness, you need large area, diffuse light sources such as Wakefield Photo-Metrics, which through selective switching can lower the quantity of light without altering its over-all distribution pattern.

WAKEFIELD PHOTO-METRICS

are flexible, economical, easy to install

They consist of highly diffusing corrugated plastic panels of a specially formulated vinyl chloride, known as Wākon, suspended below a flexible fluorescent lighting system. The Wākon diffusers, which are non-combustible, are mounted in a free-suspended but rigidly locked grid which can be readily assembled to meet the lighting requirements and fit the structural limitations of various proportioned classrooms.

Told here are several of the basic advantages of Wakefield Photo-Metrics for modern classroom planning. Many others are described and illustrated in our new 40-page booklet called, WAKEFIELD LIGHTING: AS FLEXIBLE AS YOUR CLASSROOMS. Write for one to The Wakefield Company, Vermillion, Ohio. In Canada: Wakefield Lighting Limited, London, Ontario.

THE WAKEFIELD COMPANY
VERMILION, OHIO
WAKEFIELD LIGHTING LIMITED
LONDON, ONTARIO



Bolta serves 'em right . . . **everytime!**



FOOD TASTES BETTER when it is served better.
In institutions of all types — wherever food is served —
Bolta's laminated color trays add appetite-appeal.

Available in 36 color-and-pattern combinations, Bolta's
exclusive laminated color trays are built to give several extra
years of service. Bolta trays will not warp, split or stain —
they're impervious to cigarettes, acids or juices.

For finer service every day, serve it on a Bolta tray.

BOLTA PRODUCTS, Lawrence, Mass., A Division of
The General Tire and Rubber Co.

Bolta
TRAYS

. . . add appeal to every meal!

**GENERAL
PLASTICS**

The General Tire
& Rubber Company



CAFETERIAS



SCHOOLS



HOSPITALS



RESTAURANTS